SELPHY DS700
SERVICE MANUAL

Revision 0

QY8-13A7-000

Scope

This manual has been issued by Canon Inc., to provide the service technicians of this product with the information necessary for qualified persons to learn technical theory, installation, maintenance, and repair of products. The manual covers information applicable in all regions where the product is sold. For this reason, it may contain information that is not applicable to your region.

Revision

This manual could include technical inaccuracies or typographical errors due to improvements or changes made to the product. When changes are made to the contents of the manual, Canon will release technical information when necessary. When substantial changes are made to the contents of the manual, Canon will issue a revised edition.

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I. MANUAL OUTLINE

This manual consists of the following three parts to provide information necessary to service the SELPHY DS700:

Part 1: Maintenance
Information on maintenance and troubleshooting of the SELPHY DS700

Part 2: Technical Reference
New technology and technical information such as FAQ's (Frequently Asked Questions) of the SELPHY DS700

Part 3: Appendix
Block diagrams and pin layouts of the SELPHY DS700

Reference:
This manual does not provide sufficient information for disassembly and reassembly procedures. Refer to the graphics in the separate Parts Catalog.

II. TABLE OF CONTENTS

Part 1: MAINTENANCE

Part 2: TECHNICAL REFERENCE

Part 1

MAINTENANCE

←→

1. MAINTENANCE

1-1. Adjustment, Periodic Maintenance, Periodic Replacement Parts, and Replacement Consumables by Service Engineer

(1) Adjustment

Adjustment	Timing	Purpose	Tool	Approx. time
Destination settings (EEPROM settings)	At logic board ass'y replacement	To set the destination.	None.	1 min.
Language settings	At logic board ass'y replacement	To set the language to be displayed on the TV.	TV (in the user mode)	1 min.
Waste ink counter resetting (EEPROM settings)	- At logic board ass'y replacement - At waste ink absorber replacement	To reset the waste ink counter.	None.	1 min.
Paper feed motor ass'y position adjustment	- At paper feed motor ass'y replacement	To adjust the belt tension. (Position the paper feed motor so that the belt is stretched tight.)	None.	2 min.
Access cover gear phase adjustment	- At access cover unit replacement - At main cover unit replacement	To adjust the access cover damper.	None.	1 min.
Pump unit adjustment	- At pump unit replacement - At purge tube replacement - At pump drive gear replacement	To set an accurate ink absorption function.	None.	2 min.
Grease application	- At carriage unit / carriage shaft replacement - At access cover unit replacement - At feed roller ass'y replacement	To maintain sliding properties of the: - carriage oil pad / carriage shaft, carriage rail. - access cover, and - feed roller ass'y.	- GREASE EU-1 - MOLYKOTE PG641 - FLOIL KG-107A	1 min.

Note: DO NOT loosen the 2 red screws on both front sides of the main chassis, adjusting the head-to-paper distance.

The red screws securing the paper feed motor ass'y may be loosened only at replacement of the paper feed motor ass'y.

(2) Periodic maintenance
No periodic maintenance is necessary.

(3) Periodic replacement parts
There are no parts in this printer that require periodic replacement by a service engineer.

(4) Replacement consumables
There are no consumables that require replacement by a service engineer.

(5) Replacement of the print head
Procedures:

1) Press the Power button to turn on the printer.
2) Open the access cover.
   => The print head holder will move to the ink tank replacement position (to the left), and the LED blinks in green.
3) Press and hold the Resume/Cancel button for 2 seconds or longer.
   => The print head holder will move to the print head replacement position (to the right), and the LED blinks in green.
4) Raise the print head lock lever.
   => The print head can be removed from the holder.
5) Replace the print head, following the instructions in the user's guide.

1-2. Customer Maintenance

Adjustment	Timing	Purpose	Tool	Approx. time
Print head cleaning	When print quality is not satisfying.	To improve nozzle conditions.	- Remote control and connection to a TV - Printer button - Computer (settings via the printer driver)	42 sec.
Print head deep cleaning	When print quality is not satisfying, and not improved by print head cleaning.	To improve nozzle conditions.	- Remote control and connection to a TV - Computer (settings via the printer driver)	82 sec.
Ink tank replacement	When the ink tank becomes empty. (No ink error)	---	---	2 min.
Print head alignment	When print quality is not satisfying.	To ensure accurate dot placement.	- Remote control and connection to a TV - Computer (settings via the printer driver)	1 min.
Print head alignment value printing	When confirming the print head alignment values set in the printer.	To confirm the current print head alignment values.	- Remote control and connection to a TV	25 sec.
Language selection	When necessary.	To select the TV display language.	- Remote control and connection to a TV	10 sec.
Paper feed roller cleaning	When paper does not feed properly, or the paper feed roller is soiled.	To clean the paper feed roller.	- Printer button	2 min.
Bottom plate cleaning	After printing is performed on the wrong side of paper, or rollers inside the printer are extremely soiled.	To cleaning the bottom plate and platen ribs.	- Printer button	40 sec.

1-3. Product Life

(1) Printer
Specified print volume (I) or the years of use (II), whichever comes first.
(I) Print volume: 2,000 pages (4" x 6", borderless printing, standard photo)
(II) Years of use: 5 years

(2) Print head
Print volume: 2,000 pages (4" x 6", borderless printing, standard photo)

(3) Ink tank
BCI-16 Color: Approx. 75 pages (4" x 6", borderless printing, PP-101, standard mode printing from a computer)

1-4. Special Tools

Name	Tool no.	Application	Remarks
MOLYKOTE PG641	CK-0562-000	To be applied to the sliding portion of the access cover arm, and feed roller ass'y.	In common with other models.
FLOIL KG-107A	QY9-0057-000	To be applied to the sliding portion of the carriage guide rail.	In common with other models.
EU-1	QY9-0037-000	To be applied to the carriage oil pad, and the sliding portion of the carriage shaft.	In common with other models.

1-5. Serial Number Location

On the bottom shield plate.

<Part 1: MAINTENANCE>
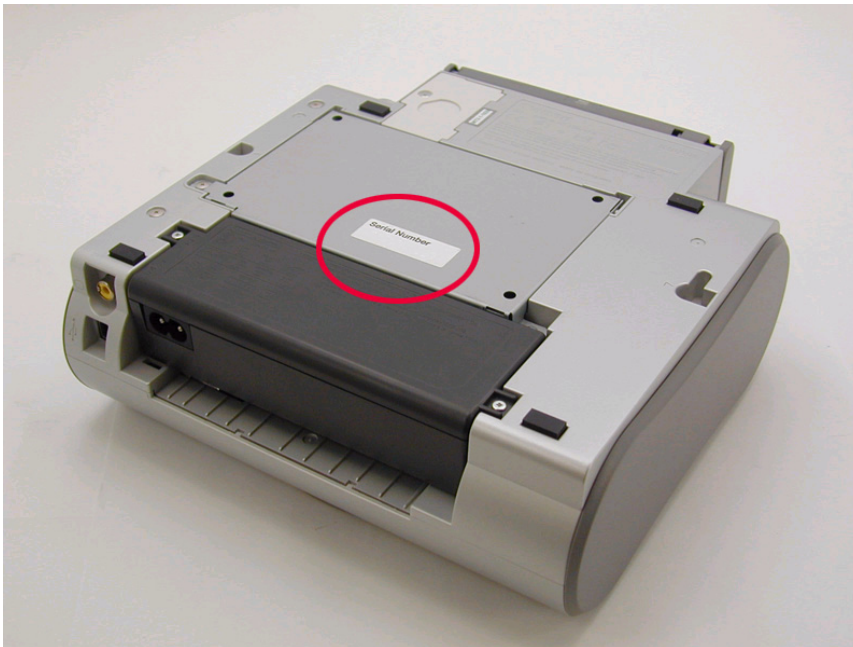
2. LIST OF ERROR DISPLAY / INDICATIONS

Errors and warnings are displayed by the following ways:

1) Errors are indicated by the number of times the LED blinks.
2) Errors and warnings are displayed on the TV.
3) Errors and warnings are displayed on the printer driver's Status Monitor.

2-1. Operator Call Errors

(by LED Blinking in Orange)

LED blinking in orange	Error [Error code]	Solution	Remarks
2 times	No paper. (ASF) [1000]	Set the paper in the ASF, and press the Resume/Cancel button.	
3 times	Paper jam. [1300]	Remove the jammed paper, and press the Resume/Cancel button.	
4 times	No ink tank. [1662]	Install an ink tank, and press the Resume/Cancel button.	
5 times	- The print head is not installed, or it is not properly installed. [1401] - EEPROM data of the print head is faulty. [1403 / 1405].	- Install the print head properly, and close the access cover, or, with the print head installed, turn the printer off and on. - If the error is still not resolved, the print head may be defective. Replace the print head.	
8 times	Warning: The waste ink absorber is almost full (approx. 95% of the maximum capacity). [1700]	Pressing the Resume/Cancel button will exit the error, and enable printing. In repair servicing, replace the ink absorbers.	The service call error, indicating the waste ink absorber is full, is likely to occur soon.
9 times	The connected digital camera or digital video camera does not support Camera Direct Printing. [2001]	After removing the cable between the camera and the printer, press the Resume/Cancel button, and re-connect the cable. If the error is still not resolved, a non-supported camera may be connected. Connect a supported camera.	
	Access cover open. [1200]	Close the access cover.	

2-2. Service Call Errors

(by LED Blinking in Orange and Green Alternately, or Lit in Orange)

LED alternate blinking in orange and green	Error [Error code]	Solution (Replacement of listed parts, which are likely to be faulty)
2 times	Carriage error [5100]	- Carriage unit (QM2-1974) - Timing slit strip film (QC1-5153) - Logic board ass'y (QM2-1961)[1] - Carriage motor ass'y (QM2-1744)

3 times	Paper feed error [6000]	- Timing sensor unit (QM2-1759) - Timing slit disk ass'y (QL2-0843) - Paper feed motor ass'y (QM2-1746) - Feed roller ass'y (QM2-1970) - Platen (QC1-5176/5177) - Logic board ass'y (QM2-1961)^{*1}
4 times	Purge unit error [5C00]	- Purge unit (QM2-1975) - Logic board ass'y (QM2-1961)^{*1}
5 times	ASF cam sensor error [5700]	- Sheet feed unit (QM2-1964)
6 times	Internal temperature error [5400]	- Logic board ass'y (QM2-1961)^{*1}
7 times	Waste ink absorber full [5B00]	- Ink absorber (QC1-5195 / 5196 / 5566 / 5567 / 5568) - After replacement of the ink absorber, reset the EEPROM (waste ink amount value) on the logic board ass'y.
8 times	Print head temperature rise error [5200]	- Print head (QY6-0056) - Logic board ass'y (QM2-1961)^{*1}
9 times	EEPROM error [6800]	- Logic board ass'y (QM2-1961)^{*1}
Continuous alternate blinking	ROM error	- Logic board ass'y (QM2-1961)^{*1}
Lights in orange	RAM error	- Logic board ass'y (QM2-1961)^{*1}

*1: Before replacement of the logic board ass'y, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the ink absorbers (QC1-5195 / 5196 / 5566 / 5567 / 5568) when replacing the logic board ass'y.
[See Section 3-3. Adjustment / Settings, (7) Service mode, for details.]

2-3. Warnings

Printer (displayed via the Status Monitor or on the TV, no LED indication):

Displayed warning	Remarks
Ink low warning 1 (approx. half level)	The warning is displayed only when printer driver's Low Ink Warning Setting is enabled.
Ink low warning 2 (low remaining ink, display of "!" in the warning)	The warning is displayed only when printer driver's Low Ink Warning Setting is enabled.
Ink low warning 3 (ink level unknown, display of "?" in the warning)	The warning is displayed only when printer driver's Low Ink Warning Setting is enabled.
Print head temperature rise	If the print head temperature is high when the access cover is opened, the warning is displayed.^{*1} When the print head temperature falls below the specified temperature, the warning is released.
Protection against excess rise of the print head temperature	If the print head temperature exceeds the specified limit, a Wait is inserted during printing, When the print head temperature falls below the specified temperature, the warning is released.

*1: If the warning is displayed, the carriage does not move to the ink tank replacement position when the access cover is opened.

2-4. Troubleshooting by Symptom

	Symptom	Solution

Faulty operation	The power does not turn on.
	The power turns off immediately after power-on.
		Replace the
		  - AC adapter, or
		  - logic board ass'y[*1].

	The print head is not recognized.
	The print head does not return to the home position.
		Remove and re-install the print head, or replace the
		  - print head, or
		  - logic board ass'y[*1].

	Strange noise.	Remove foreign material, or attach a removed part if any.
	Printing stops mid-way.	Replace the logic board ass'y[*1].

Paper feed problems	Multiple sheets feed.	Replace the
		  - sheet feed unit, or
		  - output tray unit.

	Paper does not feed.	Remove foreign material, or replace the
		  - sheet feed unit, or
		  - output tray unit.

	Paper feeds at an angle.	Remove foreign material, or adjust the paper guide, or replace the
		  - sheet feed unit, or
		  - output tray unit.

Unsatisfactory print quality	No printing, or no color ejected.	Replace the
		  - ink tank,
		  - print head[*2],
		  - logic board ass'y[*1], or
		  - purge unit.

	Printing is faint, or white lines appear on printouts even after print head cleaning.
	Line(s) not included in the print data appears on printouts.
		Remove and re-install the print head, or replace the
		  - ink tank,
		  - print head[*2],
		  - purge unit, or
		  - logic board ass'y[*1].

	Paper gets smeared.	Feed several sheets of paper, perform bottom plate cleaning[*3], or clean the paper path with cotton swab or cloth.

	A part of a line is missing on printouts.	Replace the
		  - ink tank, or
		  - print head[*2].

	Color hue is incorrect.	Replace the
		  - ink tank, or
		  - print head[*2], or
		perform print head alignment.

	Printing is incorrect.	Replace the logic board ass'y[*1].
	Non-ejection of ink.	Replace the

		- ink tank, or
		- print head[*2].
	Graphic or text is enlarged on printouts.	When enlarged in the carriage movement direction, clean grease or oil off the timing slit strip film, or replace the
		- timing slit strip film,
		- carriage unit, or
		- logic board ass'y[*1].
		When enlarged in the paper feed direction, clean grease or oil off the timing slit disk ass'y, or replace the
		- timing slit disk ass'y,
		- timing sensor unit, or
		- logic board ass'y[*1].

*1: Before replacement of the logic board ass'y, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the ink absorbers (QC1-5195 / 5196 / 5566 / 5567 / 5568) when replacing the logic board ass'y.
[See Section 3-3. Adjustment / Settings, (7) Service mode, for details.]

*2: Replace the print head only after the print head deep cleaning is performed 2 times, and when the problem persists.

*3: To perform bottom plate cleaning, with the printer power turned on, press and hold the Resume/Cancel button until the Power lamp blinks 5 times, then release the button. For details, see Section 3-3. Adjustment / Settings, (6) User mode.

<Part 1: 2. LIST OF ERROR DISPLAY / INDICATION>

3. REPAIR

3-1. Notes on Service Part Replacement

Service part	Notes on replacement[*1]	Adjustment / settings	Operation check
Logic board ass'y (QM2-1961)	- Before removal of the logic board ass'y, remove the power cord, and allow for to sit approx. 1 minute (for discharge of capacitor's accumulated charges), to prevent damage to the logic board ass'y. - Before replacement, check the waste ink amount (by service test print or EEPROM information print). If the waste ink amount is 7% or more, also replace the ink absorbers when replacing the logic board ass'y. [See 3-3. Adjustment / Settings, (7) Service mode, for details.]	**After replacement:** 1. Initialize the EEPROM. 2. Reset the waste ink counter. 3. Set the destination in the EEPROM. [See 3-3. Adjustment / Settings, (7) Service mode, for details of 1 to 3] 4. Set the TV display language in the user mode. 5. Perform the print head alignment in the user mode.	- Service test print - EEPROM information print - Printing via USB connection - Digital Camera Direct Printing - Memory Card Direct Printing - Infrared Printing - Connection to the TV
Ink absorber (QC1-5195 / 5196 / 5566 / 5567 / 5568)		**After replacement:** 1. Reset the waste ink counter. [See 3-3. Adjustment / Settings, (7) Service mode.]	- Service test print - EEPROM information print
Carriage unit (QM2-1974)		**At replacement:** 1. Apply grease to the entire surface of the carriage oil pads (2 pcs.). 2. Apply grease to the sliding portions. [See 3-3. Adjustment / Settings, (4) Grease application.] **After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print
Paper feed motor ass'y (QM2-1746)	- The red screws securing the paper feed motor are allowed to be loosened. (For any purposes other than paper feed motor replacement, DO NOT loosen them.)	**After replacement:** 1. Adjust the paper feed motor. [See 3-3. Adjustment / Settings, (1) Paper feed motor adjustment.]	- Service test print
Access cover unit (QM2-1982) Main cover unit (QM2-1955)		**After replacement:** Adjust the phase of the access cover arm and access cover gear. [See 3-3. Adjustment / Settings, (2) Access cover gear phase adjustment.]	- Opening and closing of the access cover
Pump unit (QM2-1979), Purge Tube (QC1-5555), Pump Drive Gear (QC1-5253)		**After replacement:** Perform the pump unit adjustment. [See 3-3. Adjustment / Settings, (3) Pump unit adjustment.]	- Service test print
Carriage shaft (QC1-5150)		**At replacement:** 1. Apply grease to the sliding portions. [See 3-3. Adjustment / Settings, (4) Grease application.]	- Service test print

Timing slit strip film (QC1-5153)	- Upon contact with the film, wipe the film with ethanol. - Confirm no grease is on the film. (Wipe off any grease thoroughly with ethanol.) - Do not bend the film.	**After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print
Timing slit disk ass'y (QL2-0843)			
Print head (QY6-0056)		**After replacement:** 1. Perform the print head alignment in the user mode.	- Service test print

*1: General notes:

- Make sure that the flexible cables and wires in the harness are in the proper position and connected correctly.

[See 3-2. Special Notes on Repair Servicing, (1) Flexible cable and harness wiring, connection, for details.]

- Do not drop the ferrite core, as it may damage the core.
- Protect electrical parts from damage due to static electricity.
- Before removing a unit, after removing the power cord, allow the printer to sit for approx. 1 minute (for capacitor discharging to protect the logic board ass'y from damages).
- Do not touch the timing slit strip film and timing slit disk ass'y. No grease or abrasion is allowed.
- Protect the units from becoming soiled with ink.
- Protect the housing from scratches.
- Exercise caution with the red screws, as follows:
    - i. The red screws of the paper feed motor may be loosened only at replacement of the paper feed motor ass'y (DO NOT loosen them in other cases).
    - ii. DO NOT loosen the red screws on both front sides of the main chassis, securing the carriage guide rail positioning (they are not adjustable in servicing).

3-2. Special Notes on Repair Servicing

(1) Flexible cable and harness wiring, connection

Exercise care when handling the flexible cables and harness wiring. Improper wiring or connection may cause a short-circuit, and may lead to ignition or emission of smoke.

(I) Panel board ass'y and front I/F unit wiring
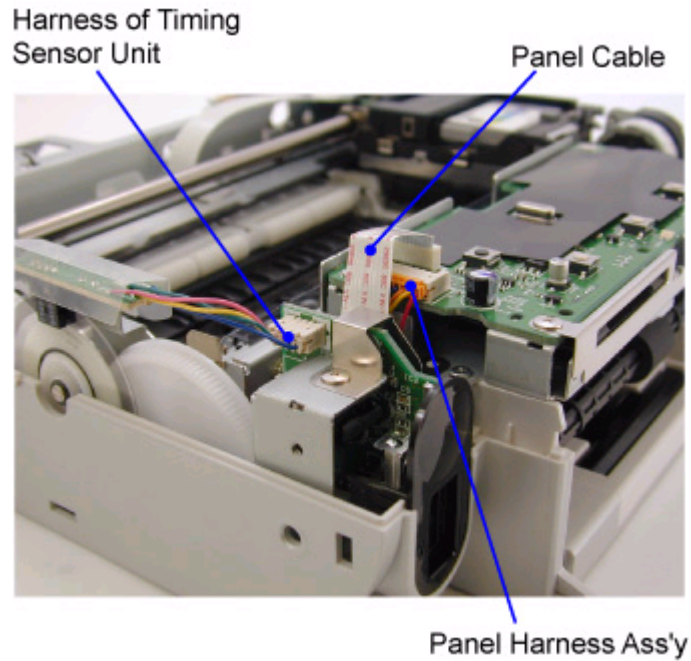
(II) Logic board ass'y wiring
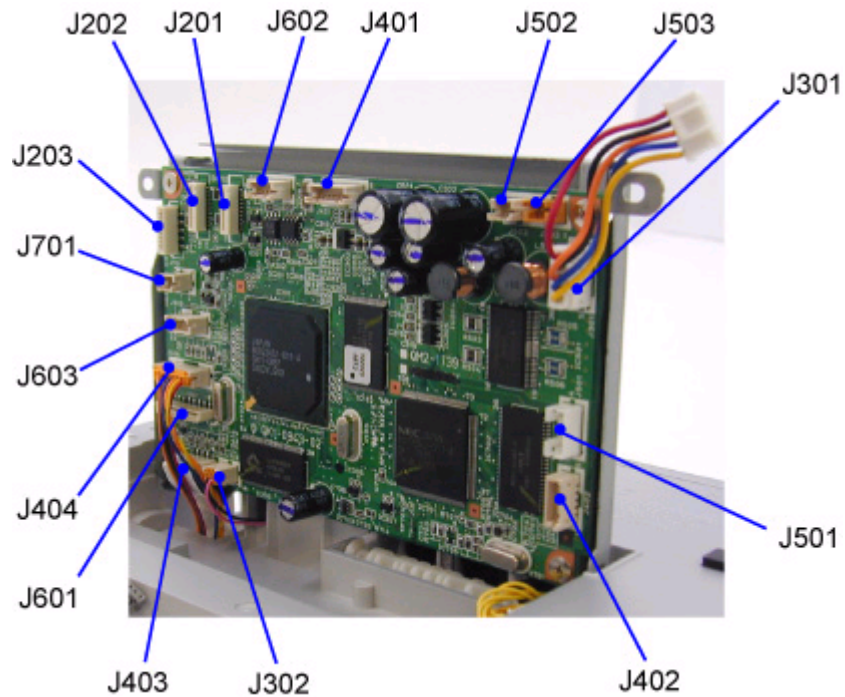
J201, J202, J203: Carriage FCC cable connectors

J301: DC Harness ass'y connector

J302: Battery holder ass'y harness connector

J401: PE sensor and PG sensor connector

J402: Connected to the PF/ASF sensor inside the sheet feed unit

J403: Panel cable connector

J404: Panel harness ass'y connector

J501: Connected to the AP motor harness inside the sheet feed unit

J502: Paper feed motor ass'y connector

J503: Carriage motor ass'y connector

J601: IR cable connector

J602: USB harness ass'y connector

J603: DSC harness ass'y connector

J701: Video harness ass'y connector

(III) Printer unit wiring

<Enlarged View>

Bottom Case Ass'y

DC Harness Ass'y
for AC Adapter

Logic Board Ass'y

<Wiring of Logic Board Ass'y assembled in Bottom Case Ass'y>
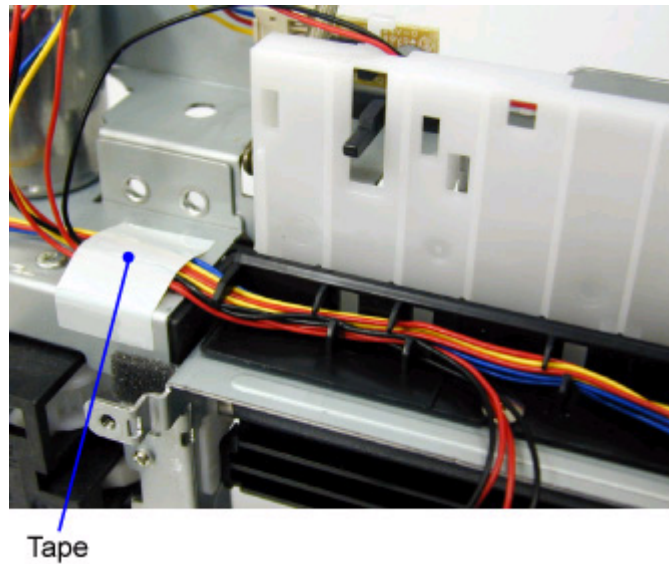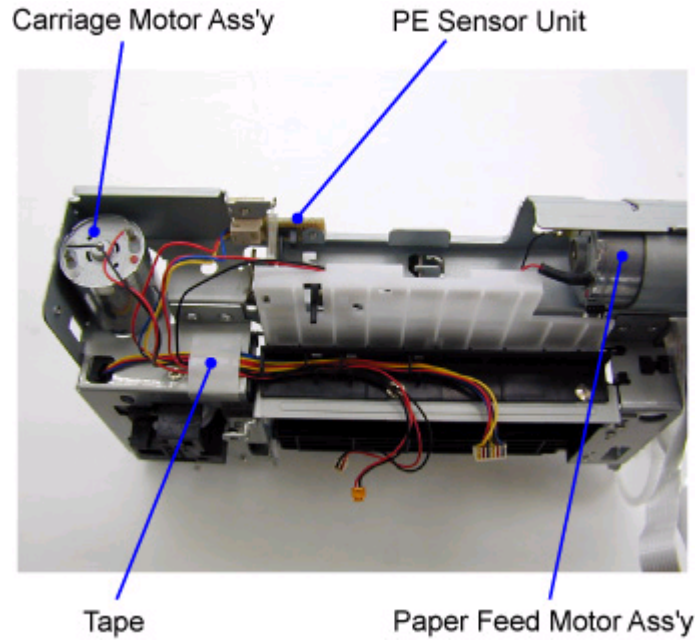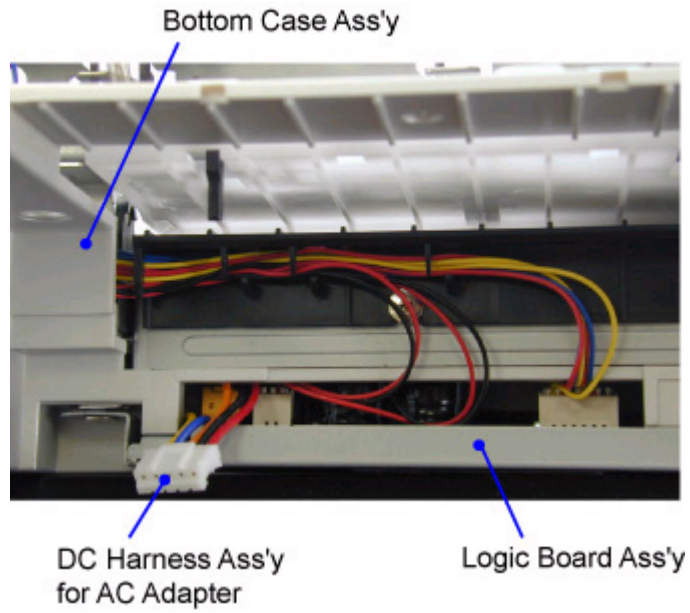
(IV) Paper feed motor ass'y wiring
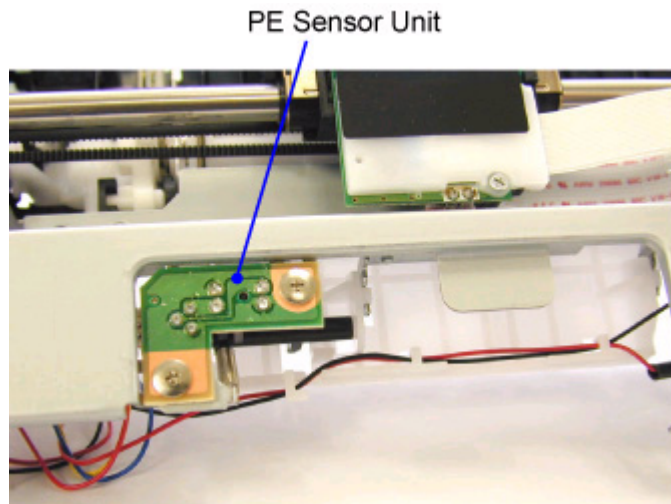
PE Sensor Unit

(V) Carriage motor ass'y and PE sensor harness wiring

Carriage Motor Ass'y

PE Sensor Unit

(VI) Front I/F unit wiring

Connection with Harness
of Timing Sensor Unit

DSC Harness Ass'y

IR Cable

(VII) Rear I/F unit wiring

USB Harness Ass'y

Video Harness Ass'y
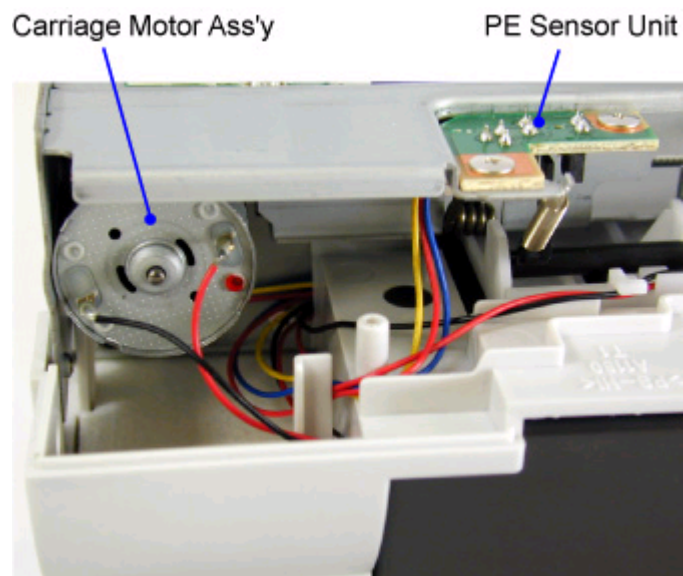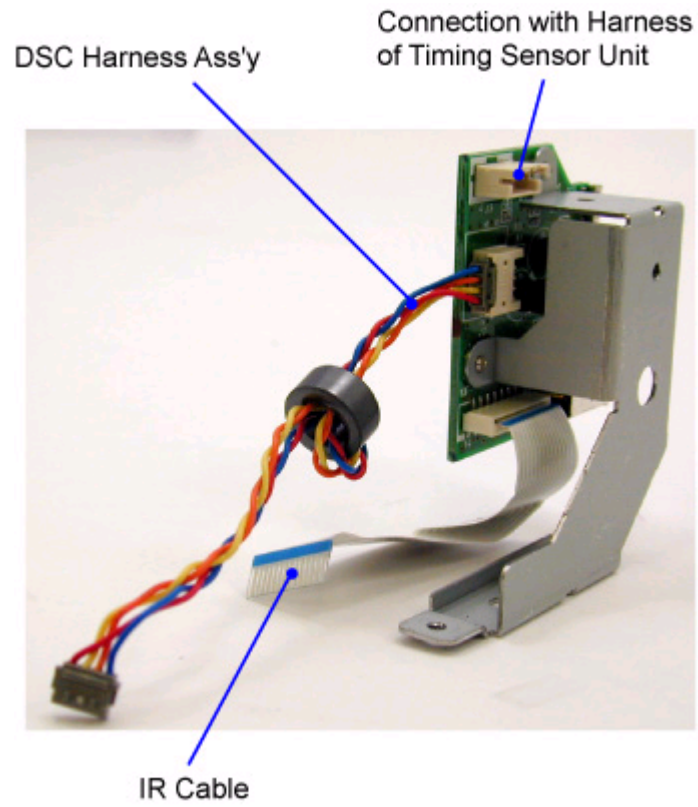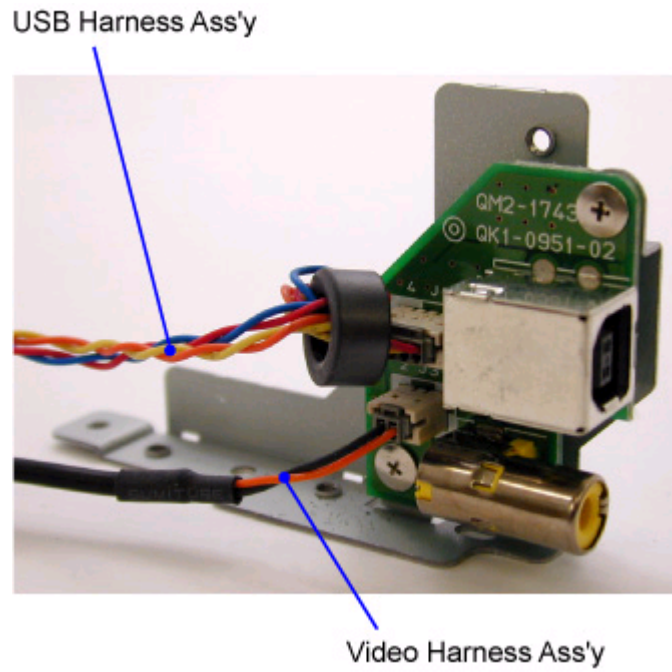
(2) Notes on disassembly and re-assembly

- **AC adapter and logic board ass'y removal**

  1) Remove the 4 screws indicated by the arrow in the figure below. Position the DS700 so that it stands on the output tray unit, as shown below, to facilitate servicing.
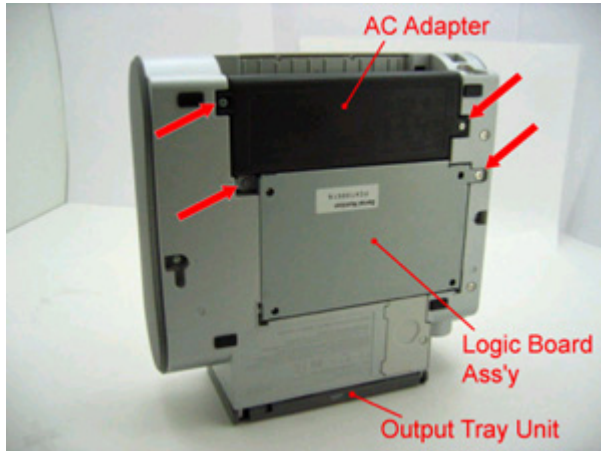
  2) Remove the DC harness ass'y, and AC adapter.
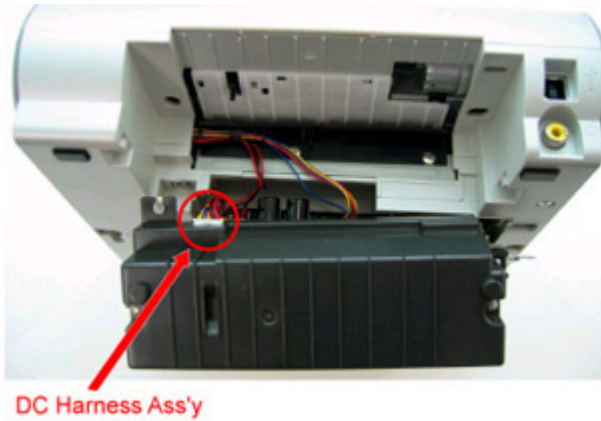
  3) Remove the harnesses and cables from the logic board ass'y, leaving J402 and J501 on the left side and J601, J403, and J302 on the right side connected so that further work can be done easily.

     Note: For removal of harnesses or cables with few pins, use a pair of tweezers to avoid damaging the connectors.
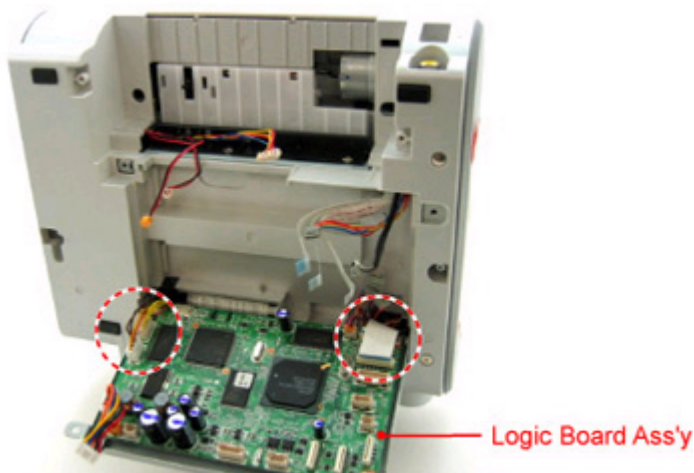
4) Hold the logic board ass'y in a horizontal position, and slide it to the left to release the hook on the right side.
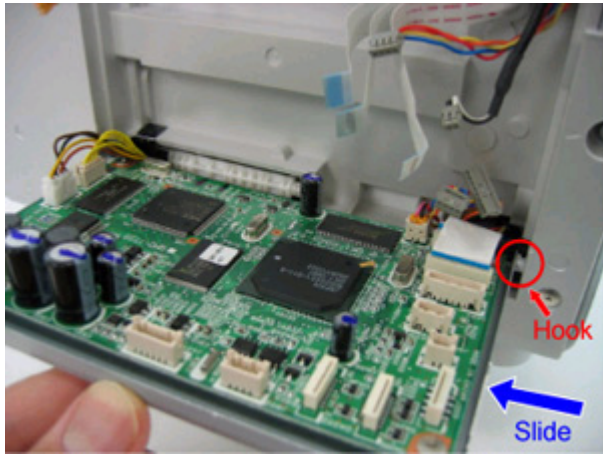
5) Pull and slide the right side of the logic board ass'y to the right, to release the hook on the left side.
   Then, remove the remaining harnesses and cables from the logic board ass'y.

   Note: For removal of harnesses or cables with few pins, use a pair of tweezers to avoid damaging the connectors.
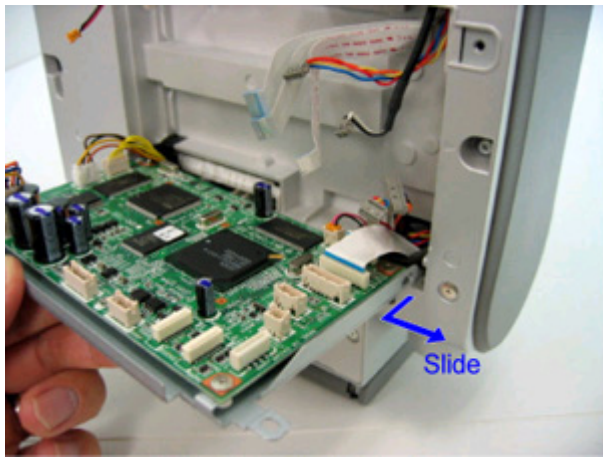
● **Output tray unit removal**

1) Push the left and right sides of the paper output tray inward to release the hooks.
2) Pull the left side of the paper support outward to release the hook.
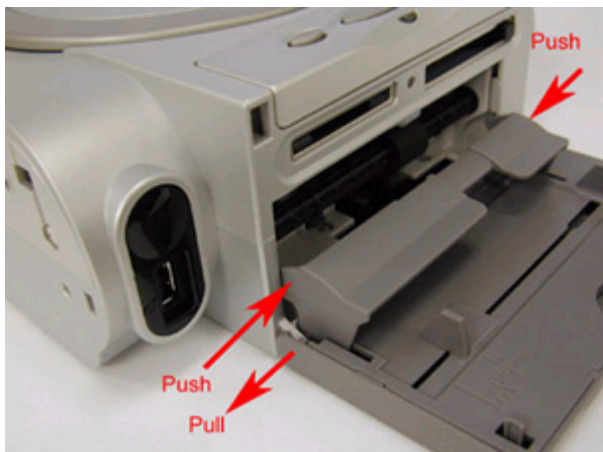
- **Side cover R ass'y removal**

  Remove the screw from the bottom case.
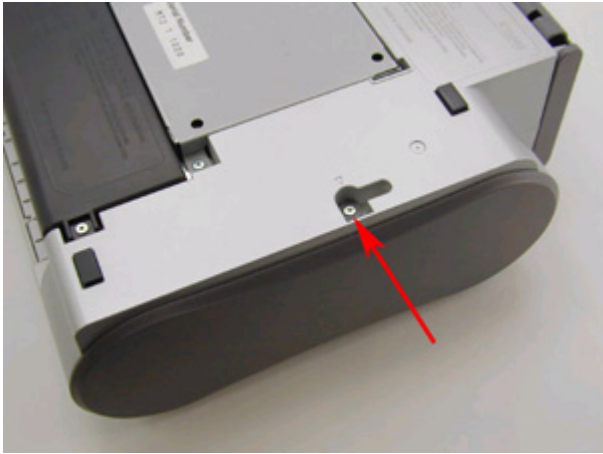
- **Side cover L removal**

  Remove the screw from the bottom case.
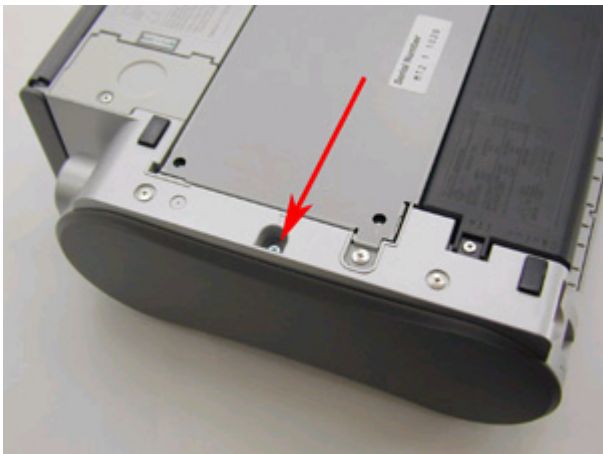
- **Main cover unit removal**

  Remove 2 screws from the left side and 2 screws from the right side.

  <Right Side>   <Left Side>
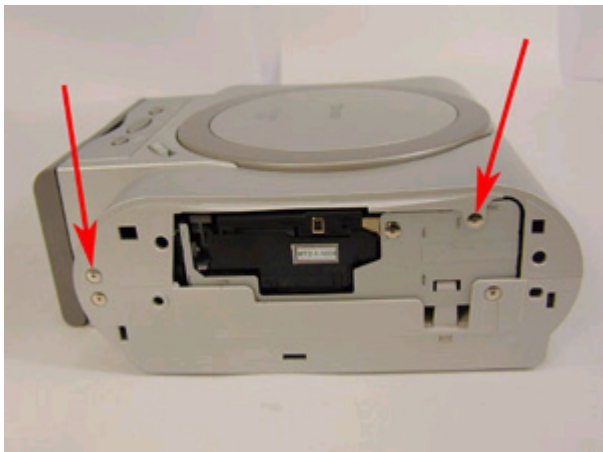
- **Torsion spring and grounding panel board plate positions**
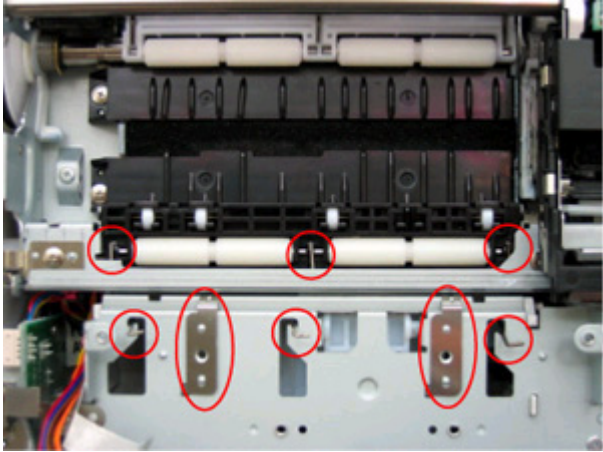
- **Printer unit removal**

1) Remove the motor and sensor harnesses from the logic board ass'y, and the timing sensor unit harness from the front I/F unit.
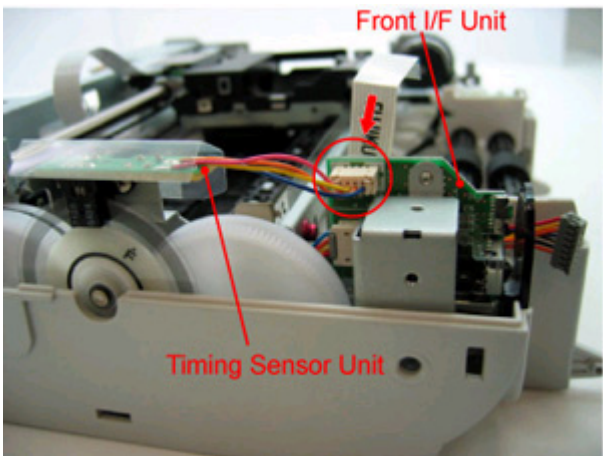
2) While pressing the carriage lock lever to release the lock, move the carriage to the left.
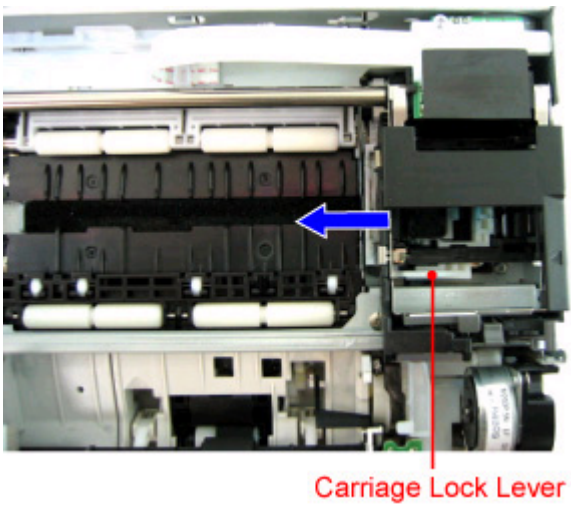
3) Remove the 3 screws shown in the figures below.
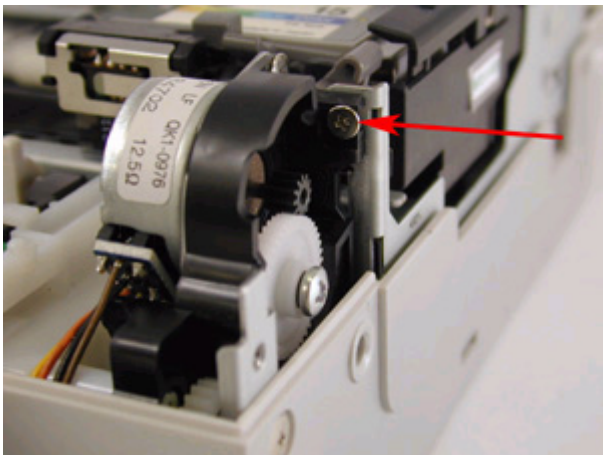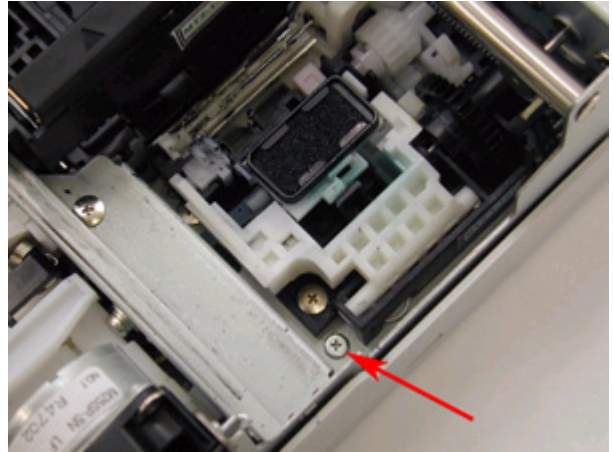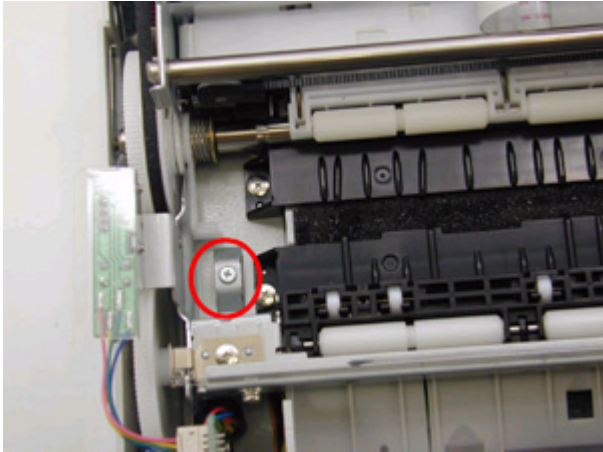
4) Remove 1 screw, and release the hooks at 2 locations.
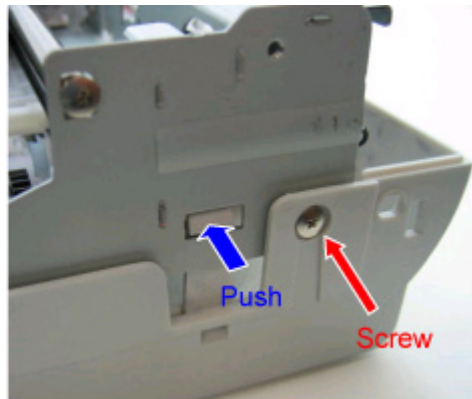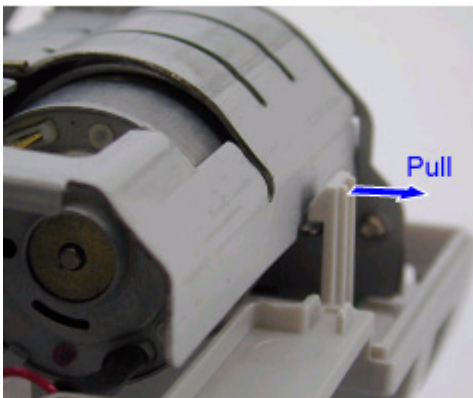
5) While lifting the back side portion of the printer chassis, slide the printer unit backward and remove from the bottom case ass'y.

Note:

- The printer unit is connected via the purge tube to the sheet feed unit. When removing the printer unit from the purge tube, use a pair of tweezers to protect the tube from damage.

When re-assembling the printer unit, securely connect the purge tube to the end, while being careful not to damage the purge tube.
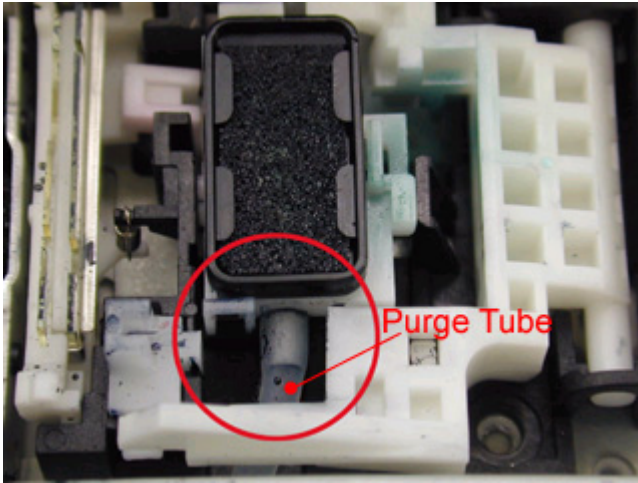
- DO NOT touch or scratch the timing slit strip film and the timing slit disk ass'y, and keep them free from any grease.

● **Sheet feed unit removal**

Remove 3 screws, and slide the 2 shafts to the right to remove the sheet feed unit.
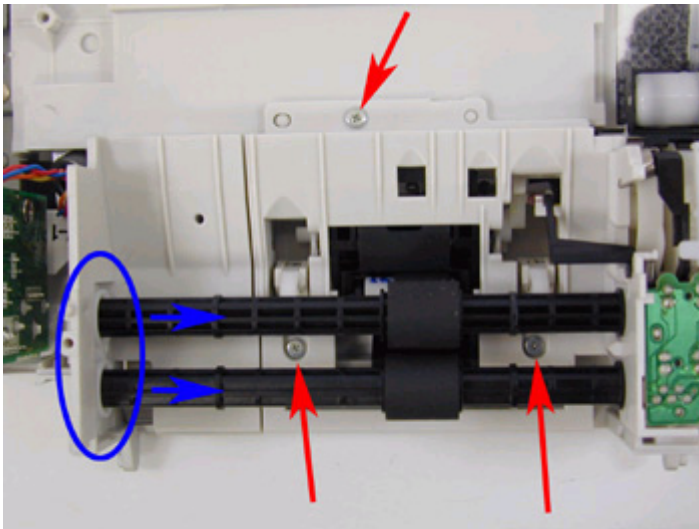
● **Pump unit removal**

While creating space with a flat-blade screwdriver, etc., slide the gear portion upward to release it, and remove the pump unit.
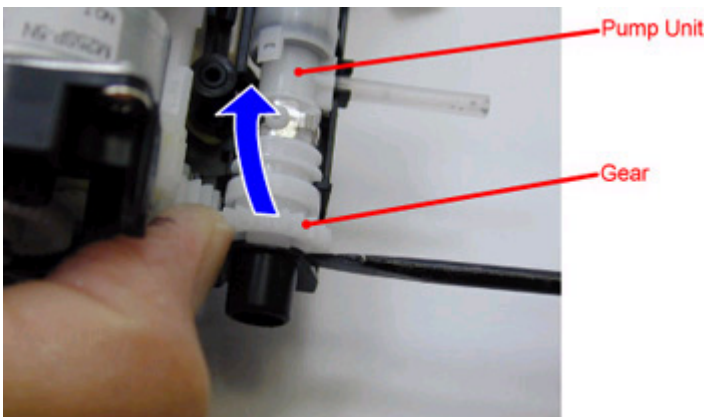
Note: In re-assembling the pump unit, adjustment is required.
See [3-3. Adjustment / Settings, (3) Pump unit adjustment], for details.

● **Timing slit strip film attachment**

Attach the film so that the arrow on the left end faces upward, as shown in the figure below.
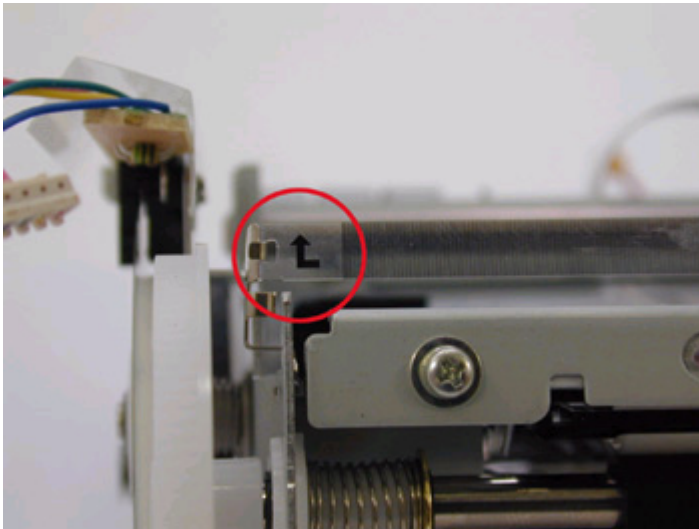
● **Purge unit removal**

1) Remove the carriage shaft and the carriage motor ass'y.
2) Remove the harness from the PE sensor unit.
3) Remove the 2 screws shown in the figures below.
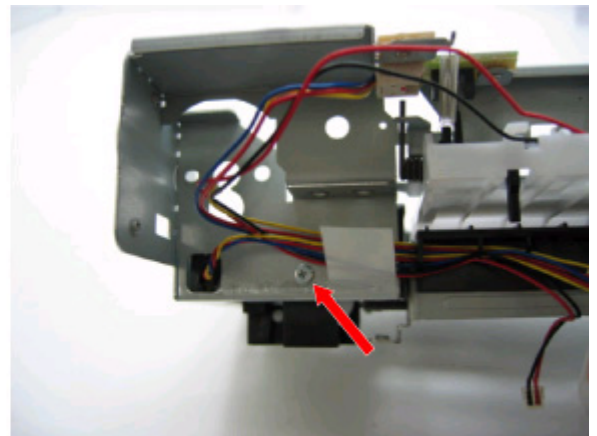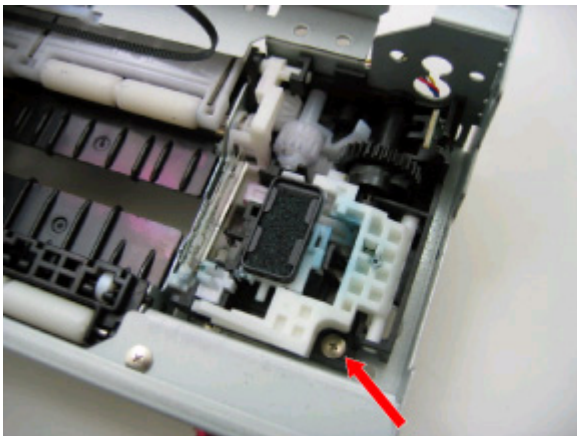
Rear View

● **Carriage unit cable holder removal**

1) Release the hook by pulling it in the direction <1> in the figure below.
2) Slide the cable holder in the direction <2> in the figure below.
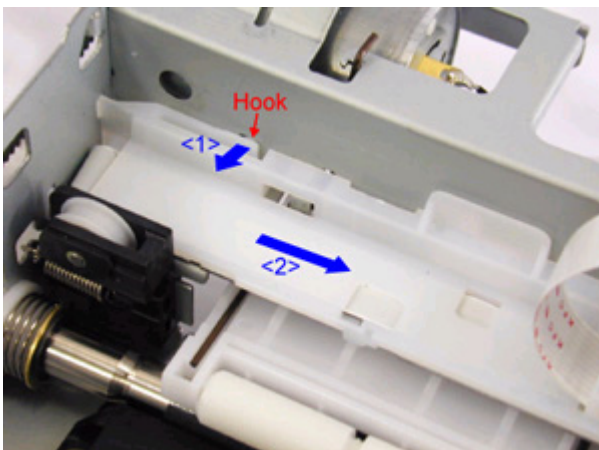
3) Lift the cable holder's left side upward, and remove the flat cable.
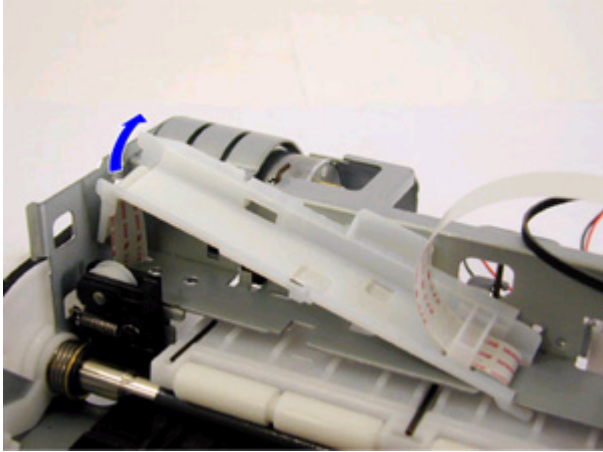
- **Tension spring position**
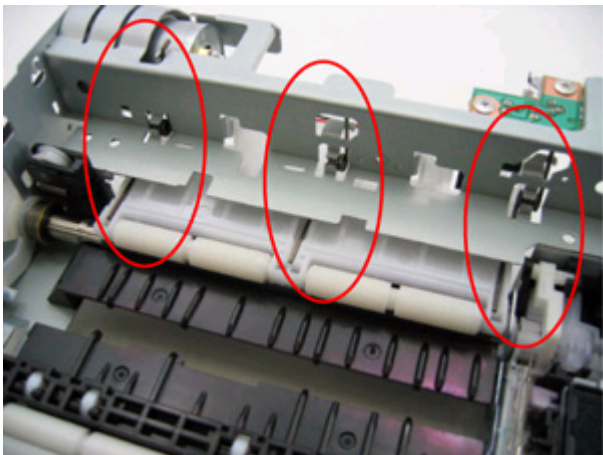
3-3. Adjustment / Settings

(1) Paper feed motor adjustment

Perform the following adjustments when the paper feed motor ass'y is replaced:

1) When attaching the motor, fasten the screws so that the belt is properly stretched (in the direction indicated by the blue arrow in the figure below).

2) After replacement, be sure to perform the service test print, and confirm that no strange noise or faulty print operation (due to dislocation of the belt or gear, or out-of-phase motor, etc.) occurs.

Red screws securing
the paper feed motor.
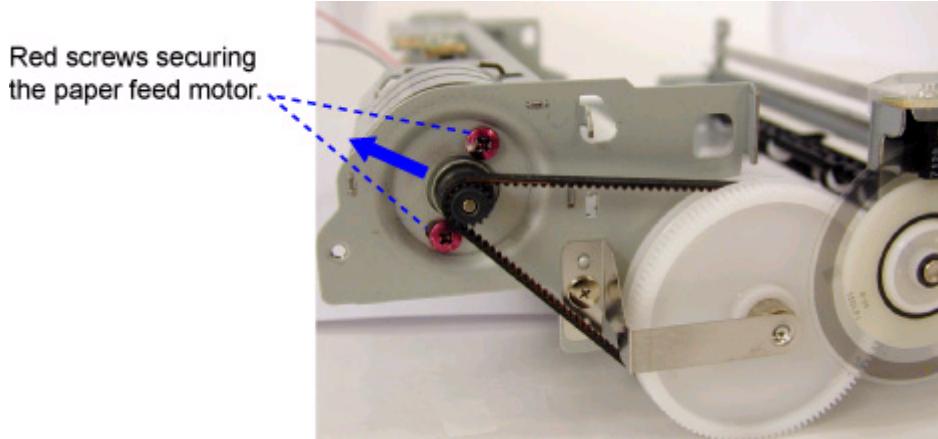
Note: The red screws securing the paper feed motor may be loosened only at replacement of the paper feed motor ass'y. DO NOT loosen them in other cases.

(2) Access cover gear phase adjustment

After replacement or re-assembly of the access cover unit (QM2-1982) or main cover unit (QM2-1955), adjust the gear phase.

If the main cover unit is replaced with a new unit, apply grease to the locations specified in (4), Grease application, below.

1) Inside the main cover unit, confirm that the access cover spring end fits in the groove of the main cover.
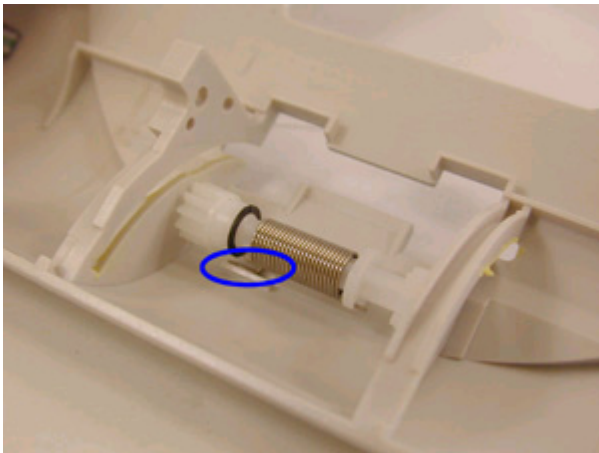
2) Rotate the gear in the direction indicated by the blue arrow, and hold it so that the boss position matches the recess of the access cover arm sliding portion.

BOSS

BOSS
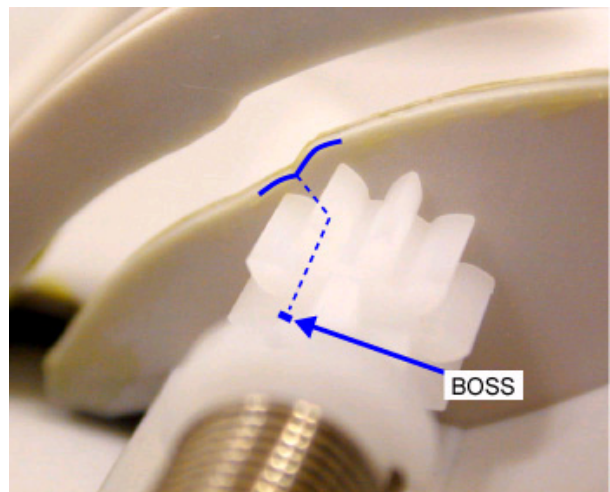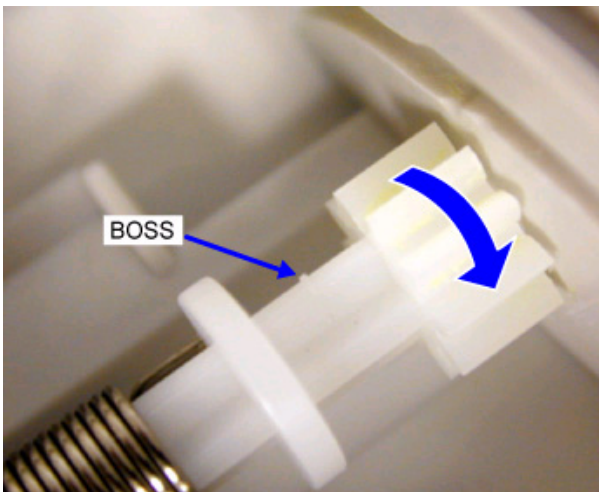
3) While holding the gear position in step 2), slide the access cover arm through the main cover's slot (in the direction indicated by the blue arrows) into place.
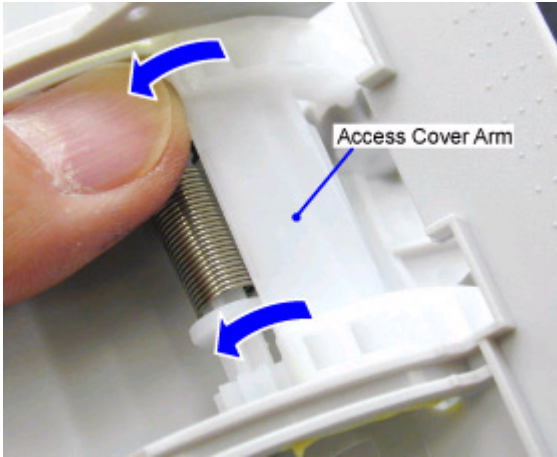
Access Cover Arm

4) Check that the access cover arm fits in place, as shown below.

5) After adjustment of the gear phase, attach the main and access cover units to the printer, and confirm the cover operation. The cover should open properly by the cover open switch, and close and lock manually.

(3) Pump unit adjustment

- **When attaching the purge tube to the pump unit**
  - The purge tube must securely fit in the pump unit hole without any gaps. Any space or crack in location "A" in the figure below prevents ink from being drawn properly.
  - The purge tube will curve, as shown in "B" in the figure below, when assembled in the sheet feed unit.
  - Align the pin to the left, as shown in "C" in the figure below.
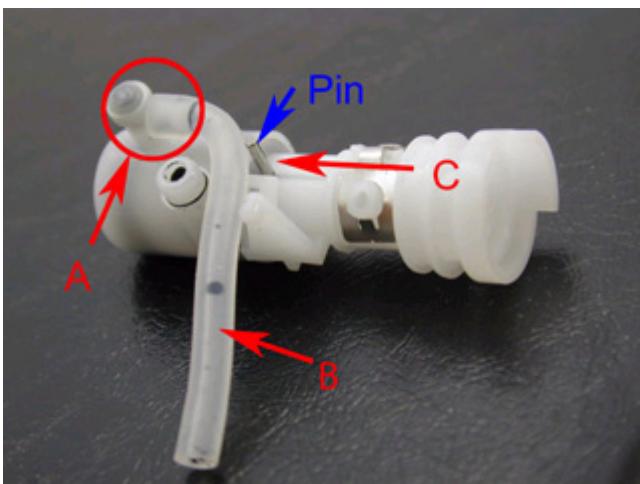
- **When assembling the pump unit in the sheet feed unit**

   - Position the pump unit so that the pump unit's pin fits in the groove "A" in the figure below.
   - Confirm that the pump unit's bosses fit in the holes "B" in the figure below.
   - Set the purge tube in place.
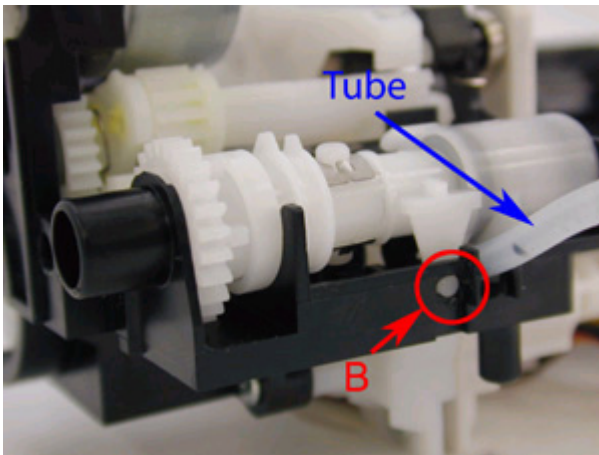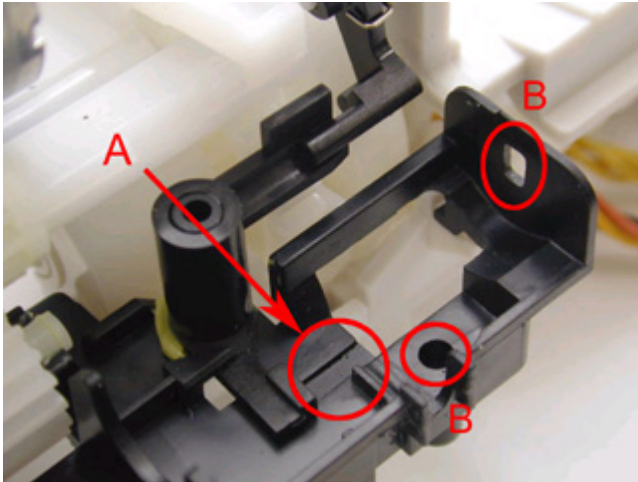
- **Check items after pump unit assembly in the sheet feed unit**

   Rotate the pump drive gear clockwise and counterclockwise, and confirm the following:
   - The pump makes piston action properly at "A" in the figure below.
   - The pump sensor lever operates properly (repeats movement shown in figures "Standby" and "Sensor ON").

<Standby>   <Sensor ON>

(4) Grease application

1.

Access Cover Arm sliding portion

Main Cover Unit

2.

CR Oil Pad X 2 pcs.

Carriage Unit

3.

Carriage Unit

Carriage Shaft sliding portion

4.

Carriage Shaft sliding portion

Carriage Unit

5.

Carriage Unit

Guide Rail

CR Gap Lever sliding portion

6.

Grounding Spring

Feed Roller Ass'y
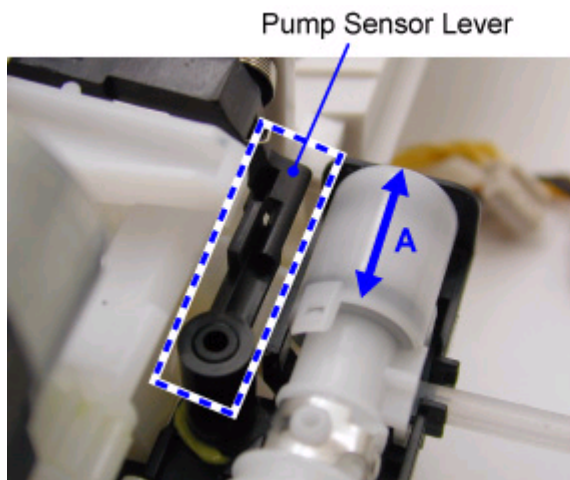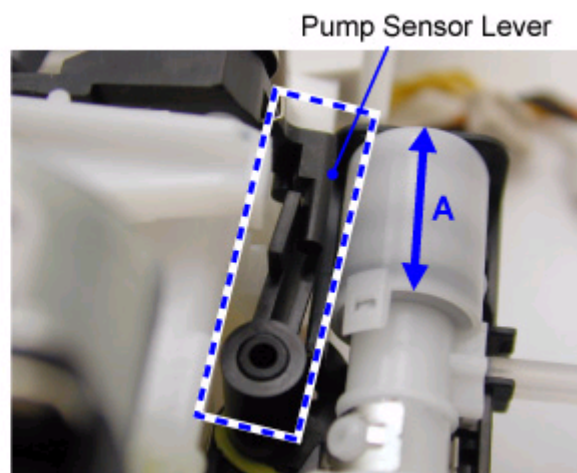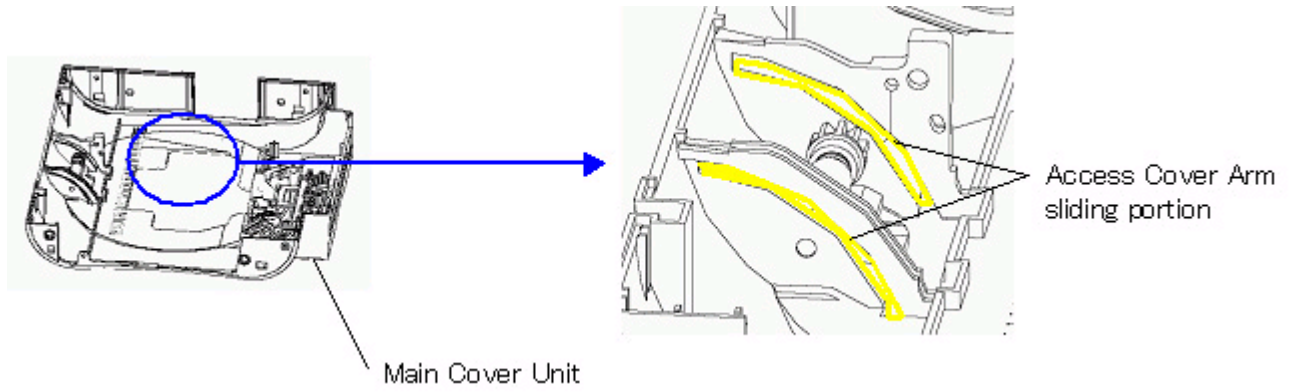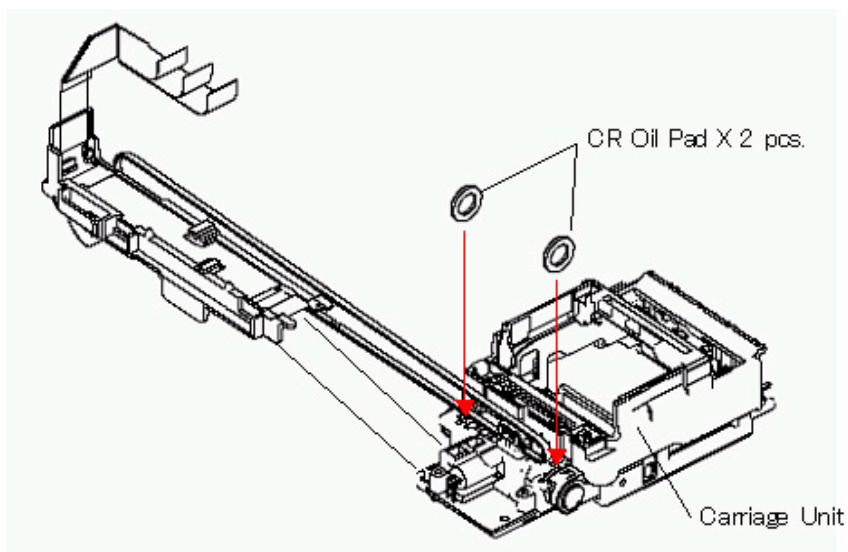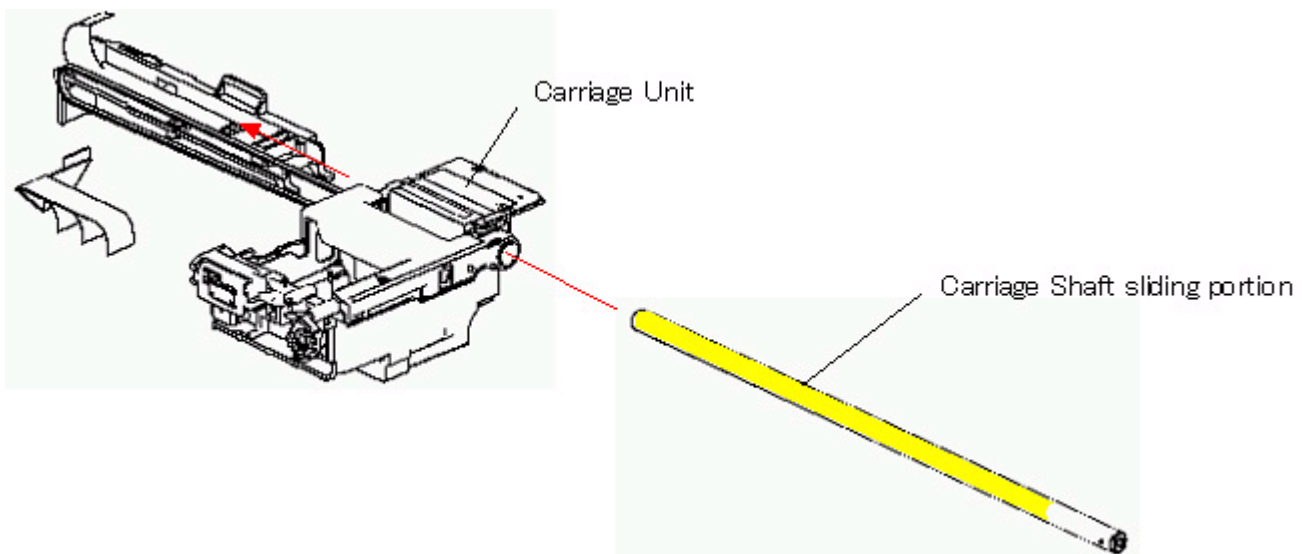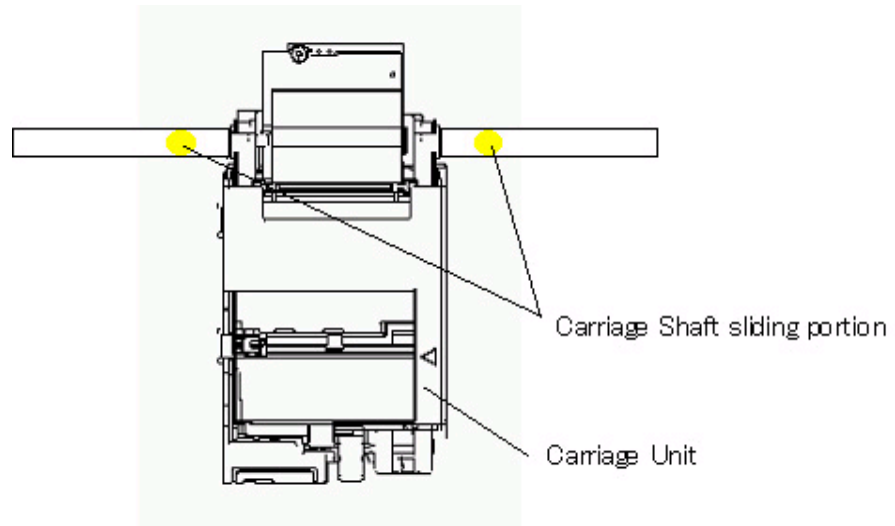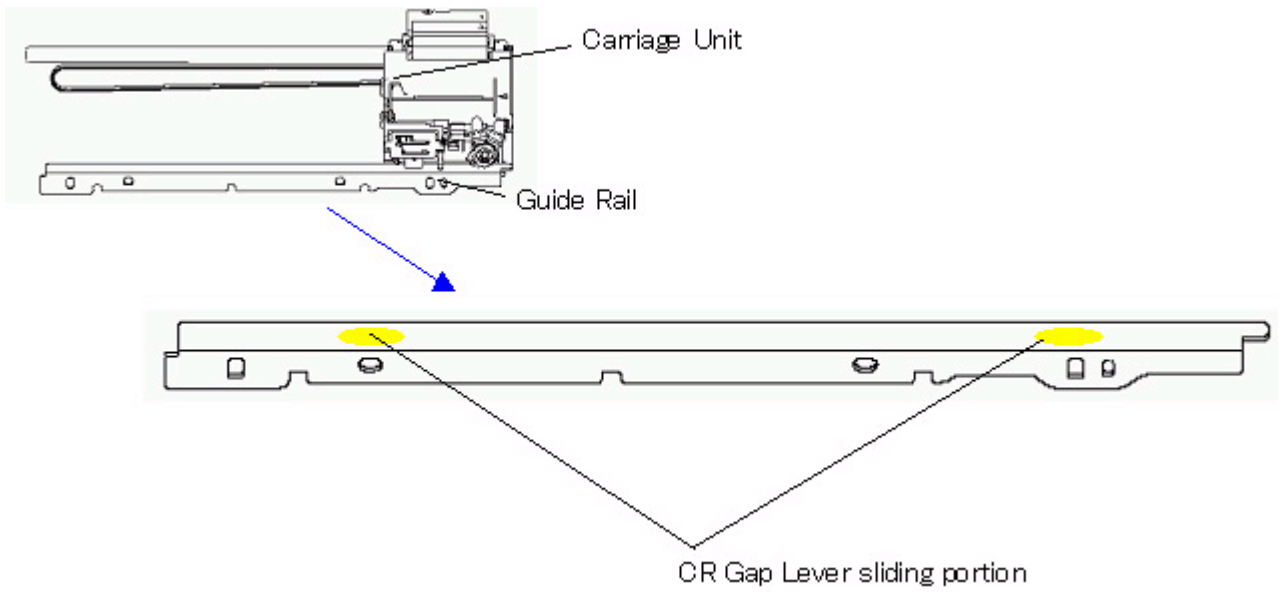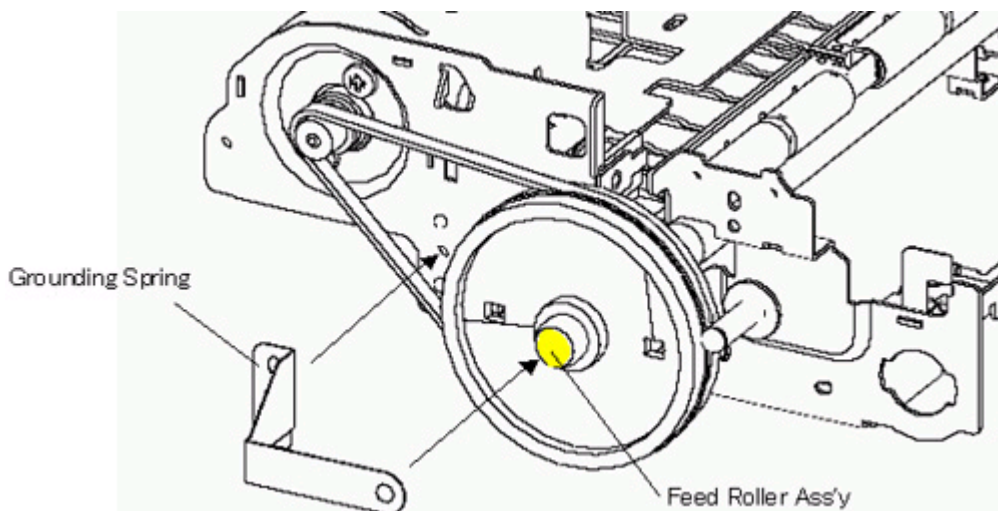
Part name		Where to apply grease / oil	Grease / oil name	Grease / oil amount
Main cover unit	1	Access cover arm sliding portion (2 locations)	MOLYKOTE PG641	1 drop x 2 locations
Carriage unit	2	Entire surface of the carriage oil pad (2 pcs.)	GREASE EU-1	30 +/-5mg x 2 locations
Carriage shaft	3	Carriage shaft sliding portion	GREASE EU-1	20 +/-10mg
Carriage shaft	4	Carriage shaft sliding portion (2 times at 2 locations after assembled in the carriage unit)	GREASE EU-1	5 to 8mg x 2 times x 2 locations
Guide rail	5	Carriage gap lever sliding portion (2 locations)	FLOIL KG107A	Half drop x 2 locations
Grounding spring	6	Feed roller ass'y sliding portion	MOLYKOTE PG641	1 drop

Note: 1 drop = 9 to 18 mg

(5) Waste ink counter setting

When the logic board ass'y is replaced, reset the waste ink counter. In addition, according to the waste ink amount, replace the waste ink absorber. The standard amount for waste ink absorber replacement is given in the table below.

Waste ink amount[*1]	Ink absorber replacement
Less than 7%	Not required.
7% or more	Required.

*1: Check the waste ink amount by service test print or EEPROM information print.
[See 3-3. Adjustment / Settings, (7) Service mode.]

(6) User mode

Function	Procedures	Remarks
Nozzle check pattern printing	For procedures on standalone printers, see "Standalone printer operation" below.	Available from "Standalone printer operation," the printer driver, or connection to a TV.
Print head cleaning	For procedures on standalone printers, see "Standalone printer operation" below.	Available from "Standalone printer operation," the printer driver, or connection to a TV.
Print head deep cleaning	Available from the printer driver, or connection to a TV.	Available from the printer driver, or connection to a TV.
Print head alignment	Available from the printer driver, or connection to a TV.	Available from the printer driver, or connection to a TV.
Print head alignment values printing	Via TV connection, select Tool Box, and Head alignment print.	Available only from connection to a TV.
Language selection[*1]	Via TV connection, select Tool Box, and Languages.	Available only from connection to a TV.
Paper feed roller cleaning	For procedures on standalone printers, see "Standalone printer operation" below.	Available only from "Standalone printer operation."
Bottom plate cleaning	For procedures on standalone printers, see "Standalone printer operation" below.	Available only from "Standalone printer operation."

*1: Selectable from among the following 11 languages in the user mode (via TV connection and remote control operation):

LG = 01 Japanese
LG = 02 English 1 (mm)
LG = 03 English 2 (inch)
LG = 04 German
LG = 05 French
LG = 06 Dutch
LG = 07 Spanish
LG = 08 Portuguese
LG = 09 Italian
LG = 0A Swedish
LG = 0B Chinese

\<Standalone printer operation\>

1) Turn on the printer.
2) Press and hold the Resume/Cancel button until the LED blinks the specified number of times listed in the table below, and release it. The operation starts.

LED blinking	Operation	Remarks
1 time	Print head cleaning	
2 times	Nozzle check pattern printing	Set a sheet of 4" x 6"-sized paper in the ASF.
3 times	Paper feed roller cleaning	Set several sheets of Canon 4" x 6"-sized paper with the back side facing up.

| 5 times | Bottom plate cleaning | Set Canon MP-101 (4" x 6") or GP-401 (4" x 6") in the ASF. |

(7) Service mode

Function	Procedures	Remarks
Service test print	See "Service mode operation procedures" below.	Set a sheet of 4" x 6"(101.6 mm x 152.4 mm)-sized paper. For a print sample, see 3-4. Verification Items, (1) Service test print.
EEPROM information print	See "Service mode operation procedures" below.	Set a sheet of 4" x 6"(101.6 mm x 152.4 mm)-sized paper. For a print sample, 3-4. Verification Items, (2) EEPROM information print.
EEPROM initialization	See "Service mode operation procedures" below.	The following item is NOT initialized: - Waste ink counter
Waste ink counter reset	See "Service mode operation procedures" below.	If the waste ink amount is 7% or more, replace the ink absorbers.
Destination settings	See "Service mode operation procedures" below.	The TV display language is set to the default language for the set destination.
Print head deep cleaning	See "Service mode operation procedures" below.	Cleaning of all colors at the same time.

<Service mode operation procedures>

1) With the printer power turned off, while pressing the Resume/Cancel button, press and hold the Power button. (DO NOT release the buttons. The LED lights in green to indicate that a function is selectable.)

2) While holding the Power button, release the Resume/Cancel button. (DO NOT release the Power button.)

3) While holding the Power button, press the Resume/Cancel button 2 times, and then release both the Power and Resume/Cancel buttons. (Each time the Resume/Cancel button is pressed, the LED lights alternately in orange and green, starting with orange.)

4) When the LED lights in green, press the Resume/Cancel button the specified number of time(s) according to the function listed in the table below. (Each time the Resume/Cancel button is pressed, the LED lights alternately in orange and green, starting with orange.)

Time(s)	LED	Function	Remarks
0 times	Green	Power off	Even when the print head is not installed, the carriage returns and locks in the home position.
1 time	Orange	Service test print	See 3-4. Verification Items, (1) Service test print.
2 times	Green	EEPROM information print	See 3-4. Verification Items, (2) EEPROM information print.
3 times	Orange	EEPROM initialization	The waste ink counter value is not reset.
4 times	Green	Waste ink counter resetting	
5 times	Orange	Destination settings	Proceed to the following step 5), and follow the Destination settings procedures.
6 times	Green	Print head deep cleaning	
7 times	Orange	EEPROM dump print	
8 times	Green	NTSC / PAL signal switching	Proceed to the following step 5), and follow the NTSC / PAL signal switching procedures.
9 times	Orange	Return to the menu selection	

5) After the function (menu) is selected, press the Power button. The LED lights in green, and the selected function is performed. (When the operation completes, the printer returns to the menu selection mode automatically.)

   Note: To exit the service mode, press the Power button.

<Destination settings procedures>

In the destination settings mode, press the Resume/Cancel button the specified number of time(s) according to the destination listed in the table below, and press the Power button.

Time(s)	LED	Destination	Paper size	Language	TV
0 times	Green	No destination change	-	-	-
1 time	Orange	JPN	01 (L)	LG = 01 Japanese	NTSC
2 times	Green	US / CA / LAM LVT / TW	02 (4x6)	LG = 03 English 2 (inch)	NTSC
3 times	Orange	EUR / GB / EUM	02 (4x6)	LG = 02 English 1 (mm)	PAL
4 times	Green	CN	02 (4x6)	LG = 0B Chinese	PAL
5 times	Orange	ASA HVT / AU / HK	02 (4x6)	LG = 03 English 2 (inch)	PAL
6 times or more	Green	Return to the destination settings mode	-	-	-

   Note: After setting the destination, confirm the settings in the service test print or EEPROM information print.
      [See 3-4. Verification Items, (1) Service test print, or (2) EEPROM information print.]

<NTSC / PAL signal switching procedures>

In the NTSC / PAL signal settings mode, press the Resume/Cancel button the specified number of time(s) according to the TV mode listed in the table below, and press the Power button.

Time(s)	LED	TV mode
0 times	Green	No TV mode change
1 time	Orange	NTSC
2 times	Green	PAL
3 times	Orange	Return to the NTSC/PAL signal settings mode

   Note: After setting the TV mode, confirm the settings in the service test print or EEPROM information print.
      [See 3-4. Verification Items, (1) Service test print, or (2) EEPROM information print.]

← <Part 1: 3. REPAIR, 3-3, (5) to (7)> →

3-4. Verification Items

(1) Service test print

After repair, perform service test print, and confirm the items below.

Note: Use a sheet of 4" x 6" (101.6 mm x 152.4 mm)-sized paper.

<Print check items>

On the service test print (sample below), confirm the following items:

- Check 1, top of form accuracy: The line shall not extend off the paper.
- Check 2, EEPROM information: Destination settings, waste ink amount, etc.
- Check 3, nozzle check pattern: Ink shall be ejected from all nozzles.
- Check 4, halftone: There shall be no remarkable streaks or unevenness.
- Check 5, vertical straight lines: The line shall not be broken.

<Service test print sample>


```
DS700 V1.00 Set=JPN
TIC=04081807 D=025.3 USB(100229)
TV=NTSC Dest=02 Lang=01
FA=81 05 81 01 RF=1 VF=91 VS=9F
```

Check 1
Top of from accuracy

Check 2
EEPROM information
(Refer to the next page)

Check 3
Nozzle check pattern

Check 4
Halftone

Check 5
Vertical straight lines

<Check 2, EEPROM information>
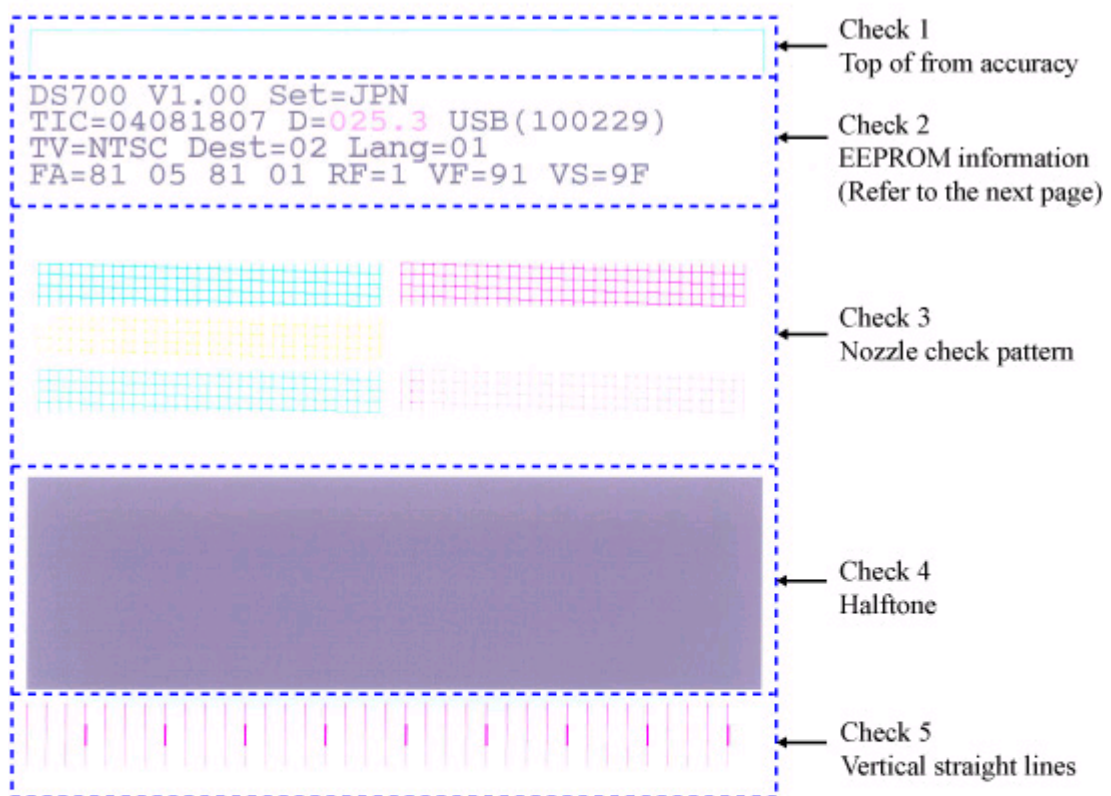
On the service test print, confirm the following EEPROM information:

DS700: Model name (same for all destinations).

Vx.xx: ROM version.

Set = xxx: Destination settings at shipment from the plant (not used in field service).

       (Destination setting in the service mode is not reflected to this value. Settings in the service mode are reflected in EEPROM's TV, Dest, and Lang values, however, the Set value remains unchanged from the original setting at shipment from the plant.)

TIC = xxxxxxxx: Timer IC data. Year, month, day, and time are printed.

D = xxx.x: Waste ink amount (%). (The values 3.5% or less are printed in black, and 3.6% or more are printed in magenta.)

USB (xxxxxx): USB serial number.

TV = xxxx: TV signal information (NTSC or PAL).

Dest = xx: Destination setting. (01 for standard model supporting L-sized paper, 02 for standard model supporting 4" x 6"-sized paper)

Lang = xx: Number corresponding to the selected language.

       01 Japanese
       02 English 1 (mm)
       03 English 2 (inch)
       04 German
       05 French
       06 Dutch
       07 Spanish
       08 Portuguese
       09 Italian
       0A Swedish
       0B Chinese

FA = xx xx xx xx: Line inspection information (not used in field service).

RF = x: Remote control operation flag (not used in field service).

VF = xx: Video frequency adjustment value (not used in field service).

VS = xx: Video signal output adjustment value (not used in field service).

(2) EEPROM information print

<How to read the EEPROM information print>

Print sample:

1:01 2:DS700 3:V1.00 4:IF(USB=1) 5:D=014.7 6:ST=2004/08/14-08:21

7:ER(ER0=1000 ER1=5C00) 8: LPT=2004/08/14-11:020

9:PC(M=004 R=001 T=001 D=002 H=003) 10:CLT(2004/08/03-06:58)

11:CH=00001 12:CT=00003

13:IS(C=1 M=0 Y=2) 14:IC(C=00924 M=01170 Y=01107)

15:Power(SON=00029 SOFF=00018 HON=00008 RON=00000 ROFF=00000)

16:REG=1 17:UR(A(Coe)=-02 B(SCoe)=+02 C(CLbi)=000 D(SCLbi)=+01)

18:LG=01 Japanese 19:TV=NTSC 20:CDIN(LG=000 PB=000 OPB=000) 21:MSD(020)

22:PAGE(All=00151 PP=00000 HR=00000 MP=00021 PR=00018 SP+SG=00108

GP=00004 PC=00000 ENV=00000) 23:KP=00027

24:CDPAGE(All=001) 25:EDGE=00096 26:L=00066

27:DCR=001 28:DCRC=00000 29:Head Temp=26.5 30:WP=0193

31: Env Temp=27.5 32:FF(81 05 81) 33:OPP=00000 34:PrnB=00025 35:Seal=00003

36:CardPaper=00039 37:CardIns(0063) 38:CardPrn(0077)

39:CardD-PR(L/4x6=0002 JPC=0001)

40:CardD-SP(L/4x6=0021 JPC=0003)

41:CardD-MP(L/4x6=0008 JPC=0000)

42:CameraD-Photo P(L/4x6=0001 JPC=0000)

43:CameraD-Fast Photo P(L/4x6=0002 JPC=0000)

44:CameraD-Matte Photo P(L/4x6=0003 JPC=0000)

HDEEPROM

45:V0001 46:SN=0000-0154 47:LN(00 00 00 03 13 17 15) 48:ID=05

49:IL=(C=000 M=000 Y=000)

Printed items:

1: Destination setting (01 for standard model supporting L-sized paper, 02 for standard model supporting 4x6-sized paper)

2: Model name (same for the all destinations)

3: ROM version

4: USB I/F connection

   Once the printer is connected via USB, "IF(USB=1)" is printed.

5: Waste ink amount (%) (D: Drain)

6: Installation date and time (ST: Set Time)

7: Operator call / service call error record (ER0 = latest error, ER1 = previous error)

8: Last printing time (last time before an error) (LPT: Last Print Time)

9: Purging count (PC: Purge Count) (M = manual cleaning, R = deep cleaning, T = timer cleaning, D = cleaning by dot count, H = cleaning at ink tank / print head replacement)

10: Last cleaning time (CLT: Cleaning Time)

11: Print head replacement count (CH: Change Head)

12: Ink tank replacement count (CT: Change Tank)

13: Ink status (IS: Ink Status)

   The number 0, 1, 2, or 3, corresponding to the Low Ink Warning level is printed.

14: Total ink consumption (IC: Ink Consumption) in mg

15: Power-on / -off count (SON = soft-power-on, SOFF = soft-power-off, HON = hard-power-on, RON = power-on via remote control, ROFF = power-off via remote control)

16: Manual print head alignment by user (1 for performed, 0 for not performed)

17: User print head alignment value (UR: User Registration)

18: Language setting (LG: Language)

   The specified language is printed.

        LG = 01 Japanese

        LG = 02 English1 (mm)

        LG = 03 English2 (inch)

        LG = 04 German

        LG=05 French

        LG=06 Dutch

        LG=07 Spanish

        LG=08 Portuguese

        LG=09 Italian

        LG=0A Swedish

        LG=0B Chinese

19: TV signal (NTSC or PAL)

20: Camera Direct Print-supported device connection record (CDIN: Camera Direct Insert)

    LG = Legacy (Canon Bubble Jet Direct), PB = Canon PictBridge, OPB = Other PictBridge

21: Longest period of non-printing (MSD: Maximum Stop Date)

22: Number of pages fed (total, plain paper, High Resolution Paper, Matte Photo Paper, Photo Paper Pro, Photo Paper Plus Glossy & Photo Paper Plus Semi-gloss, Glossy Photo Paper, postcard, envelope)

23: Print count by the Print All button (KP: Key Print)

24: Camera Direct print pages in total (CDPAGE: Camera Direct PAGE)

25: Borderless print pages

26: L & 4x6 print pages

27: Number of times dot count is reset (DCR: Dot Count Reset)

    The number of times ink counter reset is performed (OK is clicked) at Ink Low Warning 2 or 3.

28: Number of times dot count reset is cancelled (DCRC: Dot Count Reset Cancel)

    The number of times ink counter reset is cancelled at Ink Low Warning 2 or 3.

29: Print head temperature

30: Wiping count (WP: Wiping)

31: Inside temperature

32: Line inspection information (FF: Factory Function) (Not used in field service)

33: Other Photo Paper pages fed (Not used in field service, as the DS700 does not support Other Photo Paper.)

34: Infrared printing pages fed (PrnB: Print Beam)

35: Photo Sticker pages fed

36: Name card- / Credit Card-sized paper pages fed

37: Number of times a memory card is used

38: Memory Card Direct print pages in total

39: Memory Card Direct print pages: Photo Paper Pro (L/4x6, Japanese postcard)

40: Memory Card Direct print pages: Photo Paper Plus Glossy (L/4x6, Japanese postcard)

41: Memory Card Direct print pages: Matte Photo Paper (L/4x6, Japanese postcard)

42: Camera Direct print pages: Photo Paper (L/4x6, Japanese postcard)

43: Camera Direct print pages: Fast Photo Paper (L/4x6, Japanese postcard)

44: Camera Direct print pages: Matte Photo Paper (L/4x6, Japanese postcard)

HDEEPROM

45: Version

46: Serial number

47: Lot number

48: Print head ID

49: Ink ejection level (C/M/Y)

4. PRINTER TRANSPORTATION

This section describes the procedures for transporting the printer for returning after repair, etc.

1) Keep the print head and ink tank installed in the carriage.
   [See Caution 1 below.]
2) Turn off the printer to securely lock the carriage in the home position. (When the printer is turned off, the carriage is automatically locked in place.)
   [See Caution 2 below.]
3) Attach the tape in 2 locations, as shown below, to fix the output tray unit.

4) Attach the left / right side packing and accessory packing to protect the printer, and set in the packing box.
   Note: If the packing used when the box was opened is not available, use packing of the same grade.
   [See Caution 3 below.]
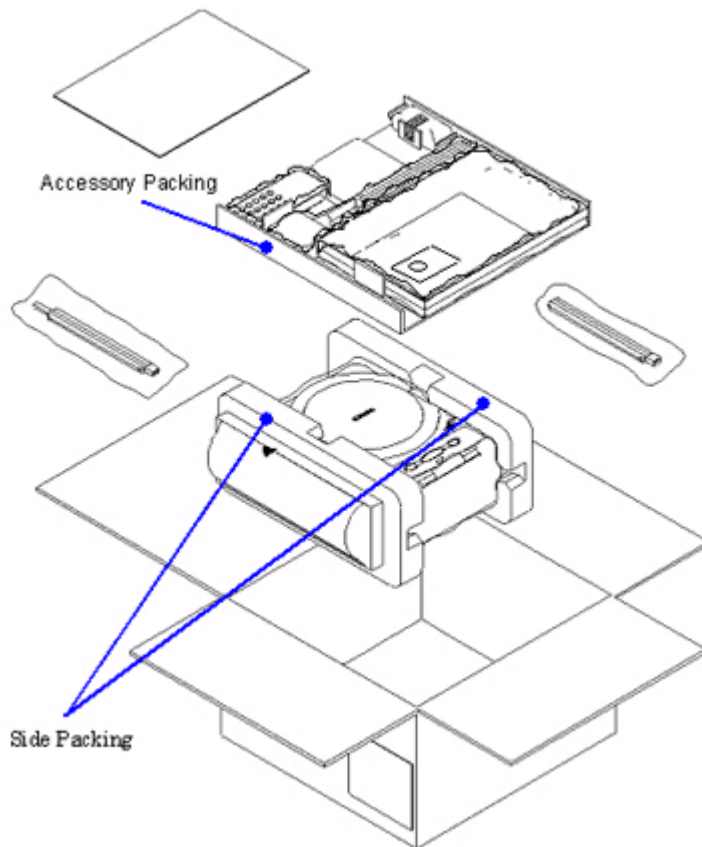
Caution:

(1) If the print head is removed from the printer and left alone by itself, ink is likely to dry. For this reason, keep the print head installed in the printer even during transportation.

(2) Securely lock the carriage in the home position, to prevent the carriage from moving and applying stress to the carriage flexible cable or causing ink leakage during transportation.

(3) Attach the accessory and side packing to the printer when transporting it, to prevent the print head face surface from contacting the purge base, and from scratching the nozzles.

Memo:

If the print head must be removed from the printer and transported alone, perform the following:

(1) Install the ink tank (to prevent the nozzles from drying).

(2) Attach the protective cap (used when the packing was opened) to the print head (to protect the print head face from damage due to shocks).

← **<Part 1: 4. PRINTER TRANSPORTATION>** →

Part 2

TECHNICAL REFERENCE

←→

1. NEW TECHNOLOGIES

(1) Robust direct printing

The SELPHY DS700 is a compact photo printer equipped with a wide array of inputs (by memory card, digital camera, and camera-equipped mobile phone), TV outputs, easy-to-use remote control and UI, realizing fast and high-quality photo printing with ease and wide range, without using a computer.

(2) Card direct printing

By using the TV display function, viewing images from the memory card on the TV and printing them are possible.

<Main menu>

- Photo Gallery:

Display photos saved in the memory card on the TV one by one, and print a desired photo. In Slide Show, photos are displayed in series automatically on the TV.

- Photo Print:

Display 9 photos on the TV at one time, specify a desired number of print copies for each photo respectively, and print them.

- Print Studio:

Make various prints such as Layout print and Sticker print.

- Tool Box:

Perform print head cleaning / alignment, set default paper for infrared printing, and select a language, etc.

(3) PictBridge / Canon Bubble Jet Direct supporting

The SELPHY DS700 supports PictBridge and Canon Bubble Jet Direct, which are direct print standards for the digital camera and printer. By using a digital camera/video camera which supports either of these standards, direct printing via cable, without using a computer, can be easily performed.

(4) Infrared printing

Direct printing of photos from a camera-equipped mobile phone can be performed via infrared communication. (Text printing from a camera-equipped mobile phone or printing from a computer / PDA via infrared communication is not available.)

(5) New design

A new design more suitable for the living room environment. By adopting switchback feeding, feeding from the front side is available.

(6) New print head and ink tank

A new print head with 3 colors (C / M / Y) with miniscule 2 pl ink drops in addition to 5 pl, and a new ink tank, BCI-16 Color, with enhanced weather resistance and storage stability, are adopted.

(7) Memory card access functionality

From a computer, read or write of image files in a memory card inserted in the printer can be performed. By using the memory card utility, provided with the printer, cancellation of write-protect or memory card ejection can be safely performed.

← **<Part 2: 1. NEW TECHNOLOGIES>** →

2. CLEANING MODE AND AMOUNT OF INK PURGED

To prevent printing problems due to bubbles, dust, or ink clogging, print head cleaning is performed before the start of printing, except in the following cases:

- Cleaning on arrival: Performed when the access cover is closed.
- Cleaning by dot count: Performed after ejection of paper.
- Manual cleaning / deep cleaning: Performed manually.

<Cleaning mode list>

Color: C / M / Y

Condition	Details	Est. amount of ink used (g)	Est. required time (sec.)
On arrival of the printer	First cleaning after shipped from the plant.	0.48	82
Dot count cleaning	When the specified number of dots are printed since the previous cleaning.	0.16	42
Timer cleaning - 1	If 504 to 720 hours have elapsed since the previous cleaning till the start of the next printing.	0.16	42
Timer cleaning - 2	If more than 720 hours have elapsed since the previous cleaning till the start of the next printing.	0.32	62
At print head replacement	When the print head is removed and installed.	0.48	82
At ink tank replacement		0.32	62
Head cleaning	- Via the printer button - Via the printer driver - Via connection to a TV (remote control)	0.16	42
Deep cleaning	- Via the printer driver - Via connection to a TV (remote control)	0.48	82
If the print head has not been capped for more than 1 hour before power-on		0.32	62

3. PRINT MODE

3-1. Resolution during Printing via Computer

Paper type	Print direction, ink used, and resolution (dpi)				
	Quality 1	Quality 2 (High)	Quality 3 (Standard)	Quality 4 (Draft)	Quality 5
Photo Paper Pro (PR-101 4x6)	16 pass- bidirectional 4800x1200 2pl	12 pass- bidirectional 1200x600 2pl	6 pass- bidirectional 1200x600 2pl/5pl		
Photo Paper Plus Glossy (PP-101 4x6) Photo Paper Plus Semi-gloss (SG-101 4x6)		12 pass- bidirectional 1200x600 2pl	6 pass- bidirectional 1200x600 2pl/5pl	4 pass- bidirectional 600x600 5pl	
Matte Photo Paper (MP-101 4x6)		12 pass- bidirectional 1200x600 2pl	6 pass- bidirectional 1200x600 2pl/5pl		
Glossy Photo Paper (GP-401 4x6/Credit Card)		12 pass- bidirectional 1200x600 2pl/5pl	6 pass- bidirectional 1200x600 2pl/5pl		
Ink Jet Hagaki		12 pass- bidirectional 1200x600 2pl	6 pass- bidirectional 1200x600 2pl/5pl		
Hagaki		6 pass- bidirectional 1200x600 2pl/5pl	4 pass- bidirectional 1200x600 5pl		

3-2. Resolution in Card Direct / Camera Direct / Infrared Printing

Paper type	Print direction, ink used, and resolution (dpi)				
	Quality 1	Quality 2 (High)	Quality 3 (Standard)	Quality 4 (Draft)	Quality 5
Photo Paper Pro (PR-101 4x6)			6 pass- bidirectional 1200x600 2pl/5pl		
Photo Paper Plus Glossy (PP-101 4x6) Photo Paper Plus Semi-gloss (SG-101 4x6) Photo Stickers (PS-101)[2]			6 pass- bidirectional 1200x600 2pl/5pl		
Matte Photo Paper (MP-101 4x6)[1]			6 pass- bidirectional 1200x600 2pl/5pl		
Glossy Photo Paper (GP-401 4x6/Credit Card)			6 pass- bidirectional 1200x600 2pl/5pl		

*1: Camera Direct Printing not supported.

*2: In Print Studio, select Sticker print.

Notes on PictBridge supported digital camera:

1. Paper size and type settings on the camera

   When Default is selected for the paper size and paper type on the camera, printing is performed according to the printer's paper size and paper type settings.

2. When paper type (other than default) is set on the camera

   Printing is performed in the following print mode:

   - Fast Photo: Photo Paper Pro (PR-101 4x6)

   - Photo: Photo Paper Plus Glossy (PP-101 4x6), Photo Paper Plus Semi-gloss (SG-101 4x6)

4. PHOTO DIRECT PRINT FUNCTION

4-1. Host PC Memory Card Access Function

(1) Supported memory cards

Media types compatible with the host computer memory card access function and Memory Card Direct Printing function are as follows:

- Compact Flash Card (CF1, CF2 [micro drive]) (However, 5V is not supported.)
- Smart Media Card (5V, 1M and 2M are not supported.)[1]
- Memory Stick / Memory Stick PRO / MagicGate Memory Stick (For Memory Stick Duo / Memory Stick PRO Duo / MagicGate Memory Stick Duo, an excusive adapter is necessary.)[1]
- SD Memory Card (For the miniSD memory card, an exclusive adapter is necessary.)[1]
- Multimedia Card
- xD-Picture Card (An exclusive adapter is necessary.)

 [1]: In the Memory Card Utility, if Read/Write mode is selected, the use of memory cards where the write protection is set to Read-only mode is prohibited, and the operations are not assured.

(2) Mounting the drive

Windows:

When the SELPHY DS700 is connected by USB cable to a host computer with the Memory Card Utility installed, and the printer is powered on via the Power button, the card slot on the SELPHY DS700 is mounted in My Computer as a removable drive.

Macintosh:

When the SELPHY DS700 is connected by USB cable to a host computer with the Memory Card Utility installed, and the printer is powered on via the Power button, and then a supported memory card is inserted, the card slot on the SELPHY DS700 is mounted on the desktop as a removable drive.

(3) Arrangement of image files

Photo numbers are generally assigned in the order of exposure by the digital camera, and, in Index printing or with the TV View function, photos are displayed in the order of those photo numbers.

In a folder, a higher priority is placed on a file when the file name, not counting the file extension, consists of 8 characters with the latter 4 being numeric, in compliance with the DCF (Design rule for Camera File system). Files are sorted in ascending order of those 4 numeric figures.

(4) Data access

For mounted cards in the SELPHY DS700, data access to the memory card is possible by performing the usual file operations through the OS's standard file control software (such as Explorer and Finder) and general software applications. (The same operations as with standard removable drives are possible: file reading, writing, deletion, media formatting, properties, etc.)

Note: In the Memory Card Utility, when "Read-only" is selected in "Read/Write attribute settings," it is not possible to write, delete, and format the data. When Read/Write mode is selected in "Read/Write attribute settings," the use of memory cards where the write protection switch is set to Read-only is prohibited.

- Memory card-supported file format: FAT16 only

  (It may be possible to read/write with memory cards formatted using FAT32, NTFS, Macintosh, etc., however they are out of specifications.)

- Change of the number of files displayed on the TV:

  When files have been added or deleted via the computer to the memory card, or the card has been formatted, the number of files displayed on the TV is not updated until the memory card is removed and re-inserted.

(5) Card slot attribute

The card slot attributes can be changed by operating the Memory Card Utility on the host computer.

Card slot attribute	State
Read-only mode	To protect the data on the memory card, writing to the memory card inserted in the card slot is prohibited. (Default setting)

	Writing data to the memory card inserted in the card slot is allowed. (Use of
Read/Write mode	memory cards where the write protection switch is set to Read Only is prohibited.) In this attribute, printing from the memory card cannot be performed.

Note: When the memory card is inserted to the printer and the printer power is turned on, the card slot attribute cannot be changed. The card slot attribute resets to Read-only by soft power-off and on.

4-2. Memory Card Direct Printing Function

(1) Slide show

The slide show function is selectable in Photo Gallery. In Slide Show, photos in a memory card are displayed one by one in sequence to the full TV screen at a certain interval (5 seconds or longer).

(2) Print mode

Displayed image print (Photo Gallery):

Images in the memory card can easily be viewed on the TV and printed, one by one.

In the print confirmation screen, the number of copies to print can be specified.

Specify images (Photo Print):

Specify the number of copies to print per image. It is not possible to specify the layout such that multiple images are included in one page.

As the number of copies to print per image is specified, the number of copies in all cannot be specified.

Print all (Print Studio):

Prints all images in the memory card. In the print confirmation screen, the number of copies to print can be specified.

Print index (Print Studio):

Prints a list of all photos using thumbnail images. For photos without thumbnails, main images are used in printing.

In the print confirmation screen, the number of copies to print can be specified.

Layout print (Print Studio):

Select a layout (containing multiple images in one page), and specify image(s) to print in the layout.

In the print confirmation screen, the number of copies to print can be specified.

Sticker print (Print Studio):

Select a layout (containing multiple copies of one image), and specify the image to print in the layout.

In the print confirmation screen, the number of copies to print can be specified.

DPOF print (Print Studio):

Performs printing according to the DPOF settings in the memory card.

It is not possible to specify the number of copies to print.

(3) Print quality

In the Memory Card Direct Printing, the print quality is fixed and is not selectable.

(4) Supported image formats

Images in the following formats can be selected when using direct printing:

DCF, CIFF, EXIF (JPEG, TIFF), EXIF-R98, JFIF, JPEG image:

Format: Baseline DCT

Pixel sampling: 4:4:4, 4:2:2, 4:2:0

Samples per pixel: 1 or 3

Maximum pixel size: Approx. 6,400 (H) x 6,400 (V)

TIFF image:

Format: RGB uncompressed or YCC uncompressed

Pixel composition: 8 bits each (for RGB and YCC)

Note:

- Non-supported images will be skipped (not printed).

If all images are of a non-supported type, they will not be printed and blank paper is ejected.

- When non-supported images are detected, "No photos stored in memory card" is displayed on the TV.
- Examples of non-supported files (note: some files may be printed even out of the specifications):

  TIFF (CMYK)

  JPEG (CMYK)

  TIFF (LZW compressed)

  TIFF (JPEG compressed)

  TIFF (ZIP compressed)

  TIFF (over 5,000 pixels)

  JPEG (over 5,000 pixels)

  JPEG (Progressive)

  JPEG (sampling ratio: 4:4:4)

  TIFF (16 bit channel)

- If certain images cannot be printed although they are within image format specifications:

  For an unknown reason, when a memory card containing partially-damaged data (detected by software such as ScanDisk as a "Bad Block") is inserted, and printing is attempted, there is a possibility that printing as well as some button operations may not be possible. Rectifying the Bad Block in the applicable image files through file recovery software such as ScanDisk may correct the problem.

- When data in digital camera is processed on Photoshop 6:

  When the original image file taken by the digital camera is processed on Photoshop 6, as Photoshop 6 leaves the thumbnail image in the original image file without deleting it, the following phenomena occur:

  ->Pre-processed data is displayed on the TV for a moment. (In the TV View function specifications, if the thumbnail image exists in the image file, the thumbnail image is displayed, and then full resolution image is displayed.)

  ->In Plain paper / Standard mode in Index printing, as printing is conducted using the thumbnail image, processed images are not printed. (In High quality mode, full resolution images are printed even the thumbnail images exist, therefore processed images are printed.) In Photoshop 5.5, as the thumbnail image is deleted after processing, the above phenomenon does not occur.

(5) Supported file names

DOS Ver.6.2 compliance

Hierarchies up to 4 layers; ex. \aaa\bbb\ccc\img.jpg,   \aaa\bbb\ccc\img.tif

- Length limitation: Up to 60 characters for the file and directory names
- Text type: If a double-byte character is used for a file or directory name, the file may not be recognized. In such case, rename the file using only single-byte alphanumeric characters.
- Extension: 3 digits (4-digit extensions, such as JPEG or TIFF, are not supported.)

4-3. File Search

In the following explanation, "O" indicates files and directories to be searched for, and "X" indicates files and directories excluded from searching.

Images to be searched for are .jpg and .tif files within the 4th layer directories, including root.

  O /xxx.jpg

  O /DCIM/110CANON/xxx.jpg

  O /ABCD/EFGH/IJKL/xxx.jpg

  X /ABCD/EFGH/IJKL/MNOP/xxx.jpg

However, the following files are excluded from searching.

(1) Hidden files, and files under hidden directories

(2) Files and sub-directories with THM as the first three characters, within PWRSHOT, DCIM, or DC97 directories

  (To avoid duplication of thumbnail images taken by Canon digital cameras)

  X /PWRSHOT/THM00001.jpg

  X /DCIM/THM00002.tif

  X /DC97/THM00003.jpg

X /DCIM/ABCD/THM00004.tif

    X /ABCD/DCIM/THM00005.jpg

    X /ABCD/DCIM/EFGH/THM00006.jpg

    X /ABCD/DCIM/THMA/IMG00006.jpg

(3) RECYCLED directory (Windows)

    X /RECYCLED

    X /ABCD/RECYCLED

(4) TRASH directory (Mac OS)

    X /TRASH

    X /ABCD/TRASH

(5) RESOURCE.FRK directory (Mac OS)

    X /RESOURCE.FRK

    X /ABCD/RESOURCE.FRK

(6) Other directories (including sub-directories)

    X _MOVE&RENAME

    X THEVOLUMESETTINGSFOLDER

4-4. File Sort

Full pathnames ("/DCIM/100CANON") are sorted in alphabetical order.

If there are six directories; "/"; "/CUSTOM"; "/FREE"; "/DCIM/100CANON"; "/DCIM/101CANON"; "/DC97/CTG_0020",
they are sorted in the following order: "/" -> "/CUSTOM" -> "/DC97/CTG_0020" -> "/DCIM/100CANON" ->
"/DCIM/101CANON" -> "/FREE"

<File name sorting specifications>

Files specified in the DCF (Design rule for Camera File system) standards (the file name with 8 characters excluding the
extensions, and with the latter 4-digit figures) are sorted to the top of the list by priority.

Also, DCF files are sorted using the last 4-digits, which are recognized as a number, and sorted in ascending order. For non-
DCF files, if the file name includes numbers, they are recognized as numbers, and are sorted in ascending order also.

Sorting is performed for each directory.

As the SELPHY DS700 can work with up to 999 files, the 1,000th file and later are not sorted.

Detailed sorting specifications are as follows:

File order is determined using the rules in the following order to sort from Low to High in ascending order:

A. When one is a DCF file, and the other is a non-DCF file, the DCF file is low.
   eg. IMG_0001.JPG < IMG_FILE.JPG

B. When both files are DCF files,
   B-1. The last 4-digits (numbers) of each file name are recognized as a number, with the smaller number low.
       eg. IMG_0001.JPG < IMG_0002.JPG,

       eg. IMG_0005.JPG < 07240010.JPG (The latter figures are 0005 and 0010.)
   B-2. When the result of the comparison in B-1 above is the same, the files are then sorted in alphabetical order.
       eg. ABC_0001.JPG < ABD_0001.JPG

       eg. IMG_0001.JPG < IMG_0001.TIF (J is "lower" than T.)

C. When both files are non-DCF files,
   C-1. From the beginning of the file name, the position of first number is detected, sorting by distance in ascending
       order.
       eg. IMG001.JPG < IMG_001.JPG
   C-2. When the result of the comparison in C-1 above is the same, numbers are sorted in ascending order.
       eg. IMG001.JPG < ABC002.JPG
   C-3. When the result of the comparison in C-2 above is the same, the length of the numerical string is sorted in
       ascending order.
       eg. IMG001.JPG < ABC0001.JPG (The length of the former is 3, and the latter is 4.)
   C-4. When the result of the comparison in C-3 above is the same, the next character is recognized as the top of the file
       name,

       and the process returns to C-1.

       eg. A_1_2_.JPG < A_1_2_3.JPG (as the results of the comparison in the first (1) and second (2) loops are the
       same, in the third loop,

       the distance to the next number of the former is 0.)
   C-5. When the result of repetition from C1 to C4 is the same, the files are sorted in alphabetical order, as in B-2.
       eg. A_1_2.JPG < A_1_2.TIF

4-5. Date Print

It is possible to print the date in the following three patterns, or to not print the date.
   MM/DD/YYYY
   DD/MM/YYYY
   YYYY/MM/DD

However, in DPOF mode, the DPOF setting is used. For the date layout and size, refer to 4-13, Date Print Specifications. The date data to be used in date print are as follows:

Print mode	Exif file or non-Exif file	Date data to be printed
DPOF mode	---	Date in the DPOF file
Non-DPOF mode	Exif files with the creation date of the image data	Date when the Exif file was created
	Non-Exif file	Updated date of the file system

4-6. Canon Bubble Jet Direct Function

The following applies when the printer is connected to a Canon Bubble Jet Direct-supported digital camera. For PictBridge functionality, refer to 4-7, PictBridge Function.

(1) Print mode

In Canon Bubble Jet Direct, the following print modes are selectable:

- Standard print: Printing of images during reproduction of single frame or index. Standard printing (1 image per page) only.
- DPOF print: Printing with DPOF printing settings. Standard and index printing can be performed.

(2) Media type

Media types that can be printed in the Digital Camera Direct Printing are as follows:

- When the language setting on the digital camera is not set to Japanese:

(Media types for destinations other than Japan are identical, however, the digital camera's panel display differs depending on the languages. The following is the display of English.)

Paper setting in digital camera operation panel	SELPHY DS700 paper
Card#1	Photo Paper Pro 4"x6" (PR-101 4"x6")
Card#2	Photo Paper Plus Glossy 4"x6" (PP-101 4"x6")
	Photo Paper Plus Semi-gloss 4"x6" (SG-101 4"x6")
	Glossy Photo Paper 4"x6" (GP-401 4"x6")
Card#3	Not supported
LTR	Not supported
A4	Not supported

- When the language setting on the digital camera is set to Japanese.

Paper setting in digital camera operation panel	SELPHY DS700 paper
L	Photo Paper Plus Glossy (SP-101 L)
	Photo Paper Pro (PR-101 L)
	Photo Paper Plus Semi-gloss(SG-101 L)
	Glossy Photo Paper (EC-101 L)
2L	Not supported
Postcard	Photo Paper Pro Postcard (PH-101)
A4	Not supported
Card	Glossy Photo Paper (EC-101 Card)

(3) Print layout

Print layout can be set to Border or Borderless in the digital camera operation panel.

Standard print:

- Borderless: 1 photo per page
- Border: 1 photo per page

DPOF print:
  - Standard:
      -- Borderless: 1 photo per page
      -- Border: 1 photo per page
  - Index print:
      -- Same as Index mode of Memory Card Direct Printing.

(4) Print quality

No. of passes: 6 passes
Resolution: 1200 dpi x 600 dpi
Y/M/C: 5 pl / 2 pl (mixed)

(5) Image correction function

Exif 2.2 files are processed with Photo Optimizer PRO, and for other files, image correction is not implemented. Not selectable by users.

(6) Maintenance

Even with a digital camera connected to the printer, Tool Box can be selected on the TV by pressing the Menu button on the remote control, then selecting Tool Box from the menu. Tool Box cannot be selected from the digital camera.

(7) Print date

Dates can be printed by switching the date setting on the digital camera's operation panel to "ON".
Dates cannot be printed in index printing of DPOF print mode.

(8) Copies

The number of prints can be specified in both standard and DPOF print modes via the digital camera's operation panel.

4-7. PictBridge Function

The following applies when the printer is connected to a Canon PictBridge-supported digital camera.

(As PictBridge is enabled when both the printer and digital camera have shared functionality, some functions may not be selectable, depending on the combination of the printer and digital camera.)

For Canon Bubble Jet Direct functionality, refer to 4-6, Canon Bubble Jet Direct Function.

For other companies' digital cameras, refer to the camera's manual.

(1) Print mode

In a PictBridge-supported digital camera, only the single frame reproduction print mode is selectable.

(2) Media type

Media types that can be printed in the Digital Camera Direct Printing are as follows:

Paper setting in digital camera operation panel	SELPHY DS700 paper
Default	Depending to the printer setting
Photo	Photo Paper Plus Glossy PP-101 4"x6"
	Photo Paper Plus Semi-gloss SG-101 4"x6"
	Glossy Photo Paper GP-401 4"x6"/Credit Card
	Photo Stickers PS-101
Fast Photo	Photo Paper Pro PR-101 4"x6"

(3) Print layout

Print layout can be set to Border or Borderless in the digital camera operation panel.

(4) Print quality

Print quality is fixed to Standard.

(5) Image correction function

The following 3 correction functions may not be selectable by users, in some cases:

POP: ON/OFF/Face brightener

VIVID Photo: ON/OFF

Noise reduction: ON/OFF

(6) Image adjustment

Brightness: -2, -1, Standard, +1, +2

Contrast: -2, -1, Standard, +1, +2

Color hue: red+2, red+1, Original, yellow+1, yellow+2

(7) Image processing

Non-processing

(8) Maintenance

Maintenance operation of the SELPHY DS700 via the digital camera's operation panel is not possible.

Maintenance operations are possible through the TV View function, even when connected to the digital camera.

(9) Print date

Dates can be printed by switching the date setting on the digital camera's operation panel to "ON."

(10) Copies

The number of prints can be specified via the digital camera's operation panel.

(11) Digital camera's standard setting

In PictBridge-supported digital cameras, Default (standard) is selectable for the items below.

When Default is selected, printing will be performed using the printer's settings.

Item	Dependency on the printer	Printer setting at shipment
Paper size	Depending on the printer setting	4" x 6"
Paper type	Depending on the printer setting	Photo Paper Plus Glossy
Layout	Depending on the printer setting	Borderless
Image correction	Depending on the printer setting	Exif Print
Date print	Depending on the digital camera	Date not printed

4-8. Exclusive Processes

(1) Exclusive processes in Memory Card Direct Printing and Digital Camera Direct Printing

As it is impossible to simultaneously process Memory Card Direct Printing and Digital Camera Direct Printing, the following actions are taken:

When the digital camera is connected via the digital camera connection cable:

Memory Card Direct Printing settings and operation are not possible.

Setting items are not displayed on the TV, and the Print button is invalid.

"Digital camera connected." is displayed on the TV.

During Memory Card Direct Printing:

Digital Camera Direct Printing is impossible. (Settings in the digital camera are possible.)

If Digital Camera Direct Printing print operations are attempted, an error is displayed in the digital camera.

(2) Exclusive process control between Direct Printing and printing from the host computer

As it is impossible to simultaneously process direct printing from memory cards or digital cameras and printing from the host computer, the following actions are taken:

When printing from the host computer:

Memory Card Direct Printing and Digital Camera Direct Printing are impossible.

During Memory Card or Digital Camera Direct Printing:

Printing from the host computer is impossible.

(3) Exclusive processes in host computer memory card access and Memory Card Direct Printing

Writing of data from the host computer to the memory card, while reading image data from the memory card for direct printing is conducted as follows in order to avoid overwriting the image being printed in Memory Card Direct Printing, via the host computer.

During Memory Card Direct Printing:

Writing data from the host computer to the memory card is not possible. (Reading of data is possible.)

An error is displayed in the host computer at the start of data writing operations.

When writing data from the host computer to the memory card*:

Memory Card Direct Printing is not possible.

Even if the Print button is pressed, printing will not start.

* To write data from the host computer to the memory card, the mode needs to be changed to the Read/write mode, using the Memory Card Utility.

(4) Exclusive processes between the memory card and memory card

There are 2 slots available, a slot for SM, MS/ MS PRO/MG-MS, and SD/MMC (used in common, however, multiple cards

cannot be inserted simultaneously), and another slot for CF/MD.

However, even though 2 cards may physically be inserted in both slot simultaneously, as one drive only is always valid, control is performed as follows:

- The card inserted first has priority. Even if a card is inserted into a drive other than the current drive, this action is ignored.

- When the card in the current drive is removed, the other drive is checked. If a card is detected, the same control as when the former card is removed and a new card is inserted, is performed.

- When multiple cards are inserted when the printer is powered on, the drive is checked in the order of CF, SM, MS, and SD/MMC, and the drive in which a valid card is detected becomes the current drive.

- When the memory card is uninstalled from a computer, the power supply for the card with the current drive is halted, and the no card inserted status is valid. However, as long as the card itself is not removed from the current drive, even though another card is inserted into another drive, this action is ignored.

4-9. Display

The SELPHY DS700 can be connected to a TV, realizing two functions, image display and operation display. Operations are carried out by the user selecting the desired menu item from within a nested menu displayed on the TV, and by pressing the OK button on the remote control, proceeding with the next step. During the process, if an image needs to be selected, it can be displayed on the TV, and images can be browsed by using the left and right cursor buttons on the remote control.

4-10. Card Slot-related Operations and Display

(1) Timing and precautions when removing the memory card

The following timing and precautions are suggested to protect the memory card data:

- Remove the memory card while the indicator lamp is not lit. (If the memory card is removed while the Access lamp is blinking or on, the data on the card is not assured.)

- When the printer is not connected to a host computer, power off the printer with the Power button, and after the indicator lamp is extinguished, remove the memory card.

- Remove the memory card together with the adapter, not the memory card only.

- When the printer is connected to the host computer, from the host computer, select "Eject the Memory Card" to turn the indicator lamp off, and then remove the memory card. (Turning off the printer also turns off the indicator lamp, however, the incorrect disk removal warning message may be displayed in the connected host computer.)

- When using Windows, and the memory card drive is displayed in Explorer, close the window prior to removing the memory card.

(2) Power supply/cut to the memory card

1) Power supply to the memory card

When any of the following events occurs, the memory card detection process starts, and if an accessible memory card is recognized, power supply to the memory card starts. (The indicator lamp lights.)

a. When a memory card is inserted into the card slot while the printer is on.

b. When the printer is powered on while a memory card is in the card slot.

c. When the USB bus is reset while the printer is on with a memory card in the card slot. (When the host computer is already on, and is connected to the printer via USB, or when the host computer is restarted.)

2) Power cut to the memory card

When any of the following events occurs, power supply to the memory card is cut. (The indicator lamp turns off.)

a. When the printer is turned off by pressing the Power button.

However, power is supplied in the following instances even if the printer is not on:

- From the time that a memory card not-removable command is received from the host computer until a removal permission command is received, or the USB cable is disconnected.

- From the time that a writing command is received from the host computer to the memory card until writing is completed.

b. When the memory card is removed from the card slot by pressing the Eject button / or by hand.

c. When the "Eject" function is implemented on the connected host computer.

(3) Memory card removal command from the host computer

When the following operation is performed on the host computer, it is detected that the memory card removal command has been implemented, and power supply to the memory card is cut.

Select "Eject the memory card" in the Memory Card Utility.

4-11. DPOF Settings in the Memory Card Direct Printing Function

(1) Supported DPOF functions
DPOF Ver. 1.0 is supported.

The following essential functions as a DPOF printer are supported:
- Standard printing
- No. of copies to be printed (1 page)
- Image format (CIFF, EXIF (JPEG), JFIF)
- Designation of images to be printed (relative path name)

The following optional functions as a DPOF printer are supported:
- Index printing
- No. of copies to be printed (2 pages or more)
- Image format (EXIF (TIFF))
- Printing of designated characters (dates, photo numbers)
  If both dates and photo numbers are selected, one of the two will be printed.
  Note: The CMT value indicating the comment and image title is not supported.

The following optional functions as a DPOF printer are not supported:
- Image format (FlashPix)
- Designation of paper types
- Trimming
- Rotation of images

(2) Print specifications in DPOF print mode
Photo number designation:
> Only photos designated in the DPOF file can be printed, and designation via the TV is impossible.

Paper type:
> The paper type can be selected via the TV.

Layout:
> Images designated for Standard printing in the DPOF file are printed in the designated order in the layout selected via the TV.
>
> Images designated for Index printing will be printed using the printer's index layout, regardless of the specified layout.

No. of copies to be printed:
> The number of copies cannot be designated via the TV. Only the number of copies specified in the DPOF file is printed.

Image correction:
> Image correction can be designated via the TV.

Print quality:
> The print quality cannot be specified.

Date print:
> Date print cannot be designated via the TV in DPOF mode, and printing is implemented using the file's DPOF settings.
> Date formats are dependent on the digital camera.

4-12. Print Layout (Details)

(1) Selectable layout in Memory Card Direct Printing
<Other than Japan model>
- Index printing:
  > 4" x 6": 24 photos, Credit Card: 6 photos

- Layout printing:

     2/4/8 photos per page with borderless/bordered (4" x 6", Credit Card)

     Half with borderless/bordered (4" x 6", Credit Card)
- Sticker printing:

     16 seals per page
- Single frame printing (= single image per page):

     4" x 6" with borderless/bordered, Credit Card with borderless/bordered

<Japan model>
- Index printing:

     L: 15 photos, Postcard: 24 photos, Name Card / Credit Card: 6 photos
- Layout printing:

     2/4/8 photos with borderless/bordered (L, Postcard, Name Card / Credit Card)

     Postcard (with ruled line) with borderless/bordered (L, Postcard, Name Card / Credit Card)
- Sticker printing:

     2/4/9/16 seals per page

     1/5/6/7 seals per page (for free-cut)
- Single frame printing (= single image per page):

     L with borderless/bordered, Postcard with borderless/bordered, Name Card / Credit Card with borderless/bordered

(2) Selectable layout in Digital Camera Direct Printing

In Digital Camera Direct Printing, Index printing and single frame printing are available.

When the language setting on the digital camera is set to other than Japanese:
(Media types for non-Japanese models are common for all markets, however, the panel display differs depending on the languages.)
- Index printing:

     4" x 6": 24 photos, Credit Card: 6 photos
- Single frame printing:

     4" x 6" with borderless/bordered, Credit Card with borderless/bordered

When the language setting on the digital camera is set to Japanese:
- Index printing:

     L: 15 photos, Postcard: 24 photos, Name Card / Credit Card: 6 photos
- Single frame printing:

     L with borderless/bordered, Postcard with borderless/bordered, Name Card / Credit Card with borderless/bordered

(3) Selectable layout in Infrared Printing (Direct Printing from a Mobile Phone via Infrared Communication)

<Other than Japan model>
- Layout printing:

     1/2/4/8 photos per page (4" x 6", Credit Card)
- Sticker printing:

     16 seals per page

<Japan model>
- Layout printing:

     1/2/4/8 photos per page (L, Postcard, Name Card / Credit Card)
- Sticker printing:

     2/4/9/16 seals per page

     1/5/6/7 seals per page (for free-cut)

(4) Layout in Memory Card Direct Printing

Layout of multiple images is arranged as shown below.

- Images are arranged horizontally, from left to right, top to bottom.
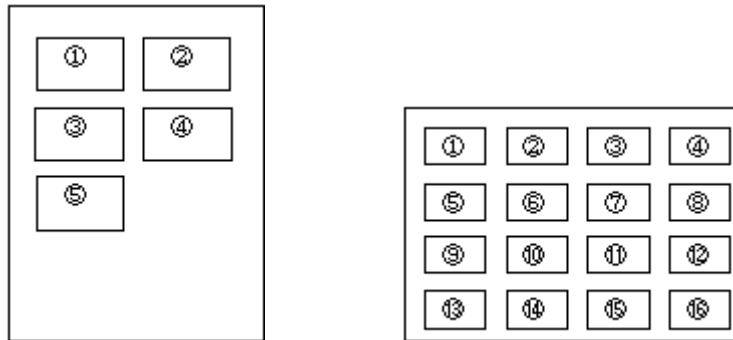
- When the number of photos designated requires less space than the layout provides, nothing is printed in the remaining spaces.

(5) Layout and image size

Processing in borderless printing (including 2/4/8 photos per page with borderless, and postcard with borderless):

1) Rotate the image data by 90 degrees (if necessary) to align the long edges of the image with those of the paper.
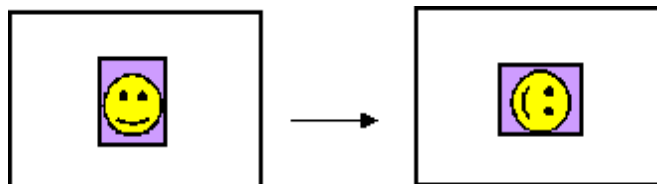
2) Enlarge (or reduce) the image data while maintaining the image's proportions so as to align either the long or short edges of the image with those of the paper , so that blank space in the paper is completely eliminated.
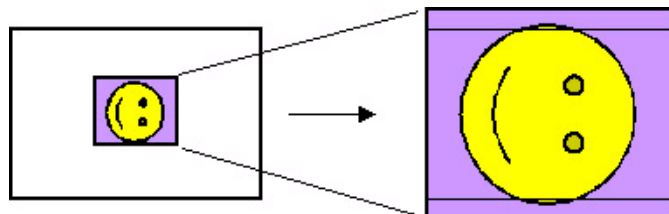
3) Any image data extending beyond the printing area will be cut off and not printed. (The discarded image data will be equally divided between top and bottom, or left and right.)

Note: As printing of the image is performed to an area 5 mm larger than that of the paper size, the perimeter of the image is further trimmed by a few millimeters.

Processing in printing in print area without image trimming

1) Rotate the image data by 90 degrees (if necessary) to align the long/short edge of the image data with that of the print area (blue line).
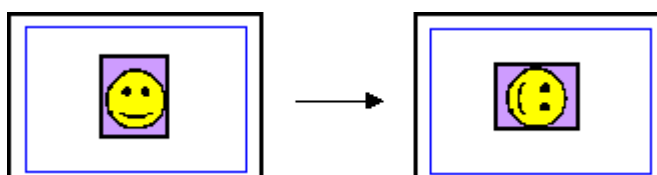
2) Enlarge (or reduce) the image data while maintaining the image's proportions so as to align either the long or short edges of the image with those of the print area (blue line), so that no image data is discarded.
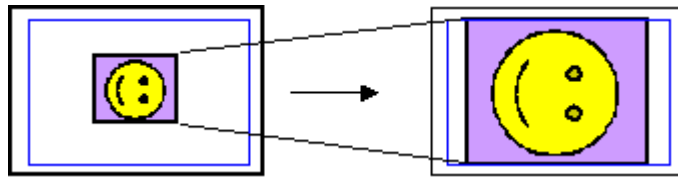
3) The area without any image data will be blank. (Empty areas will be equally divided between left and right, or top and bottom.)
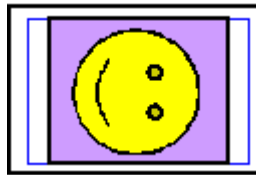
4-13. Date Print Specifications

(1) Date print in Memory Card Direct Printing

1) Settings and data format

Printing in DPOF (Index and Standard) mode:

When date print is set to ON in the DPOF settings, the date is printed using the character strings in the DPOF settings, regardless of the date setting via the TV.

The number of characters printable is up to 24 for Standard, and up to 12 for Index.

Printing in other modes:

When date print is set to ON in settings options via the TV, the Exif tag information in the file is printed in the following order:

Year (four digits), month (two digits), and date (two digits), with date elements separated by "/".

If the Exif tag information does not exit, or does not have correct information, the date when the file was updated is printed.

Ex. 2002/10/25, 10/25/2002

2) Print location, color, and size

Index mode printing:

    Location: Below the image (under the photo number)

    Color: Black

    Size: Fixed size

Index mode print sample:

001 100-0001
1999/06/30

DPOF mode Index printing:

    Location: Below the image

    Color: Black

    Size: Fixed size

DPOF mode Index print sample:

1999/06/30

DPOF mode Standard printing and printing in other modes:

    Location: Lower right, in the image (In images with an aspect ratio other than 4:3, the date is moved such that the relative distance from the lower right of the image to the date is the same as when a 4:3 ratio is used.)

    Color: Orange

    Size: According to the layout

Print sample 1:

Print sample 2:

(2) Date print in Digital Camera Direct Printing

1) Settings and data format

When date print is set in the digital camera, the date is printed using the character strings sent by the digital camera. However, in Canon Bubble Jet Direct index printing using the digital camera, the date will not be printed, regardless of the settings.

2) Print location, color, and size

Standard printing and DPOF mode Standard printing:

    Location: Lower right, in the image (In images with an aspect ratio other than 4:3, the date is moved such that the

relative distance from the lower right to the image date is the same as when a 4:3 ratio is used.)

Color: Orange

Size: According to the layout

Print sample:

DPOF mode Index printing:

Date is not printed, even when set in the digital camera's DPOF settings.

(3) Date print in Infrared Printing

In Infrared Printing, date print setting is not available, and so the date is not printed.

4-14. Photo Number Printing Specifications

(1) Photo number printing in Memory Card Direct Printing

1) Data format

Printing in Index mode:

Photo number (3-digit number) and DCF number (8-character number (***-****) displayed on the TV) are printed (without exception). Printed characters consist of 3 characters + space + 8 characters.

Printing in DPOF (Index and Standard) mode:

When the file number print is set to ON in the DPOF settings, the file number character string set in the DPOF settings is printed, as is. (However, when date print is selected, the file number will not be printed.)

The number of characters printable is up to 24 for Standard, and up to 12 for Index.

Printing in other modes:

The photo number will not be printed.

2) Print location, color, and size

Index mode printing:

Location: Below the image
(above the date)

Color: Black

Size: Fixed size

Index mode print sample:

001 100-0001
1999/06/30

DPOF mode Index printing:

Location: Below the image

Color: Black

Size: Fixed size

DPOF mode Index print sample:

100-0001

DPOF mode Standard printing:

Location: Lower right in the image (In images with an aspect ratio other than 4:3, the photo number is moved such that tl image to the photo number is the same as when a 4:3 ratio is used.)

Color: Orange   DPOF mode Standard print sample:

Printing in other modes:
   The photo number will not be printed.

(2) Photo number printing in Digital Camera Direct Printing

   The photo number will not be printed regardless of data formats.

(3) Photo number printing in Infrared Printing

   The photo number will not be printed.

5. FAQ (Problems Specific to the SELPHY DS700 and Corrective Actions)

No.	*	Function	Phenomenon	Condition	Cause	Corrective Action	Possible call or complaint
1	C	Safety during transportation	Non-ejection of ink	- Transportation of the printer with the print head and ink tank installed - Phenomenon confirmed in the transportation test	If the printer is transported without the accessory and side packing, the print head face can contact the purge base, scratching the nozzles.	Properly package the printer. For details, see Part1, 4. PRINTER TRANSPORTATION.	Ink is not ejected in the printer returned from repair.
2	A	Print results	Soiling on the back side of paper (lines or streaks parallel to the paper feed direction)	After continuous borderless printing of small sized paper (such as Credit Card), when a larger sized paper (such as 4x6) is printed	In borderless printing, printing is performed to the size slightly larger than the paper size, and ink off the paper is absorbed by the platen's ink absorber. Absorbed ink may attach to the platen rib(s) after several dozen sheets are printed, causing soiling at the leading edge of paper or on the back side of paper.	1. Perform Bottom plate cleaning (press and hold the Resume/Cancel button until the power lamp blinks 5 times, then release the button) up to 3 times. For details, please refer to the user's guide. 2. If soiling on the paper still remains after 3 times of Bottom plate cleaning, wipe the platen rib(s) and their surroundings with a cotton swab. For details, please refer to the user's guide.	- Paper gets smeared. - The back side of paper gets smeared.
3	-	Paper feeding (specifications)	Paper is not fed properly.		Due to dirty paper feed roller.	Perform Paper feed roller cleaning (press and hold the Resume/Cancel button until the power lamp blinks 3 times, then release the button). For details, please refer to the user's guide.	Paper is not ejected.
4	-	Print results (specifications)	Would like to change color hue in Direct Printing (as color hue is red-tinged).	In Direct Printing	Color hue is different from the desired colors.	Via the TV, select Tool Box, and Color adjust, and adjust colors.	- Color hue is improper. - Color hue differs from that displayed on the TV.
5	B	Paper feeding	Skewed paper feeding with Credit Card-sized paper	- In the high temperature and high humidity environment - In the low temperature and low humidity environment - With the maximum 20 sheets loaded	As the paper may be caught by the ASF base corner, and creased and rotated.	Reduce the number of sheets loaded (from 20 to 10, for example).	Paper feeds at an angle.
6	B	Print results	With GP-401 4x6 paper, the leading edge of paper contacts the print head.	In the high temperature and high humidity environment	Due to paper swelling in the high temperature and high humidity environment.	- Increase the head-to-paper distance by setting the paper thickness lever to the left. - Perform print head alignment.	Printing is scratched.

7	-	Operability	Remote control not operated	In particular usage	- The printer's remote control receiver is exposed to the direct sunlight or intense light of an inverter fluorescent light, etc. - The remote control is not within the allowable range. - The battery is empty.	- Avoid direct sunlight, and leave the printer 50cm or more away from intense light such as that from an inverter fluorescent light. - Use the remote control within 4 meters from the printer, and less than 30 degrees away from the optical axis. - Replace the CR2025 battery.	The remote control does not work.
8	-	Specifications	The bottom of the printer gets hot.	When continuously printing	Per the specifications. In continuous printing, the bottom of the printer becomes hot, but maintained within the specified range.	No specific solution.	The bottom of the printer gets hot.
9	-	Print results (specifications)	Improper color hue in printing using the Print All button		When the Print All button is pressed, printing for Photo Paper Plus Glossy is performed. So PP-101 or SG-101 is suitable for printing. With other type(s) of paper, color hue may be improper.	Use recommended paper type(s).	Color hue is not proper.
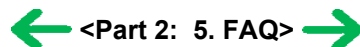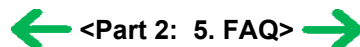
* Occurrence level:

    A: The symptom is likely to occur frequently. (Caution required)

    B: The symptom may occur under certain conditions, but likeliness is assumed very low in practical usage.

    C: The symptom is unlikely to be recognized by the user, and no practical issues are assumed.

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Part 3
APPENDIX
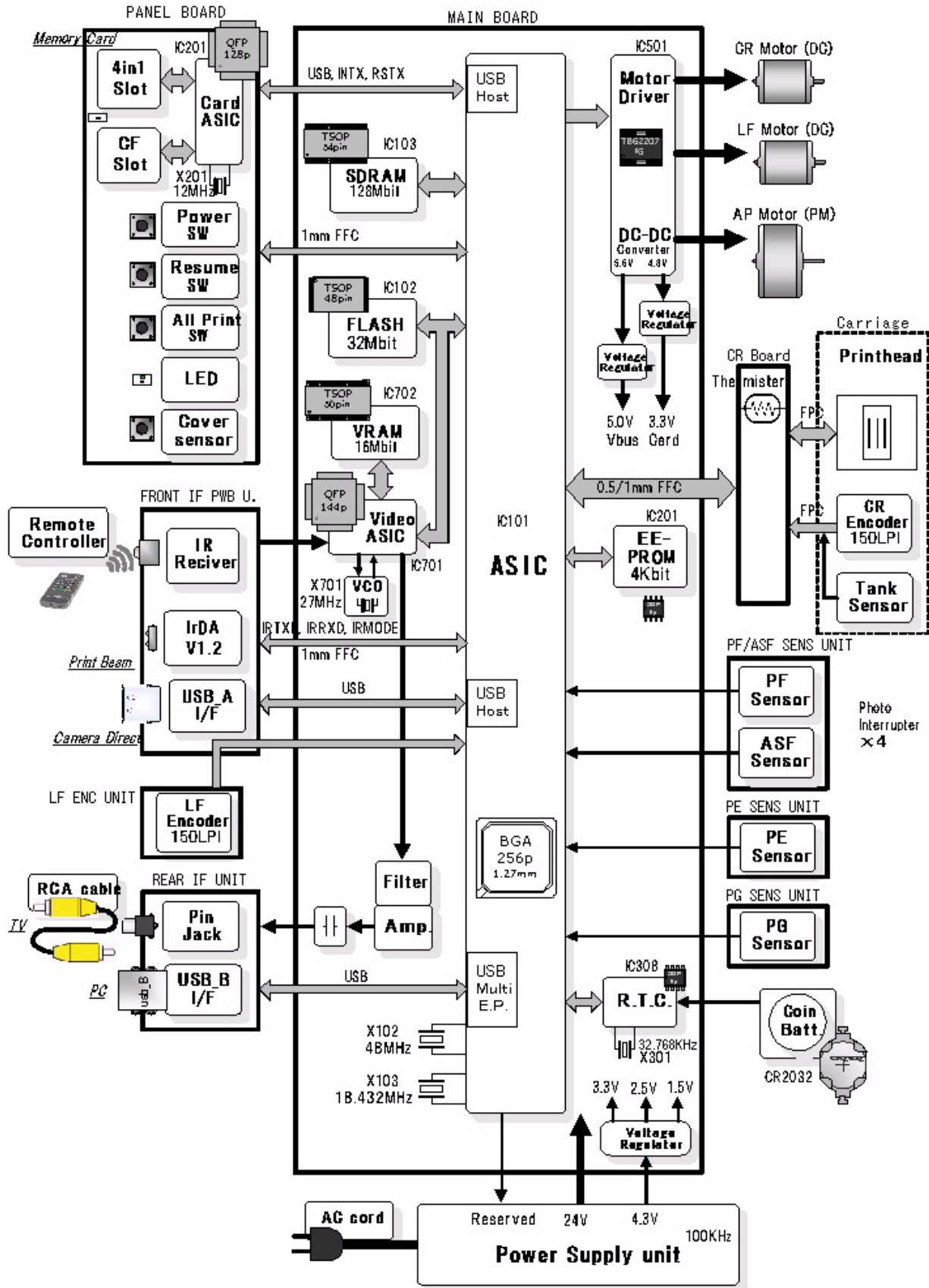
1. BLOCK DIAGRAM

<Part 3: 1. BLOCK DIAGRAM>

2. CONNECTOR LOCATION AND PIN LAYOUT

2-1. Main Board
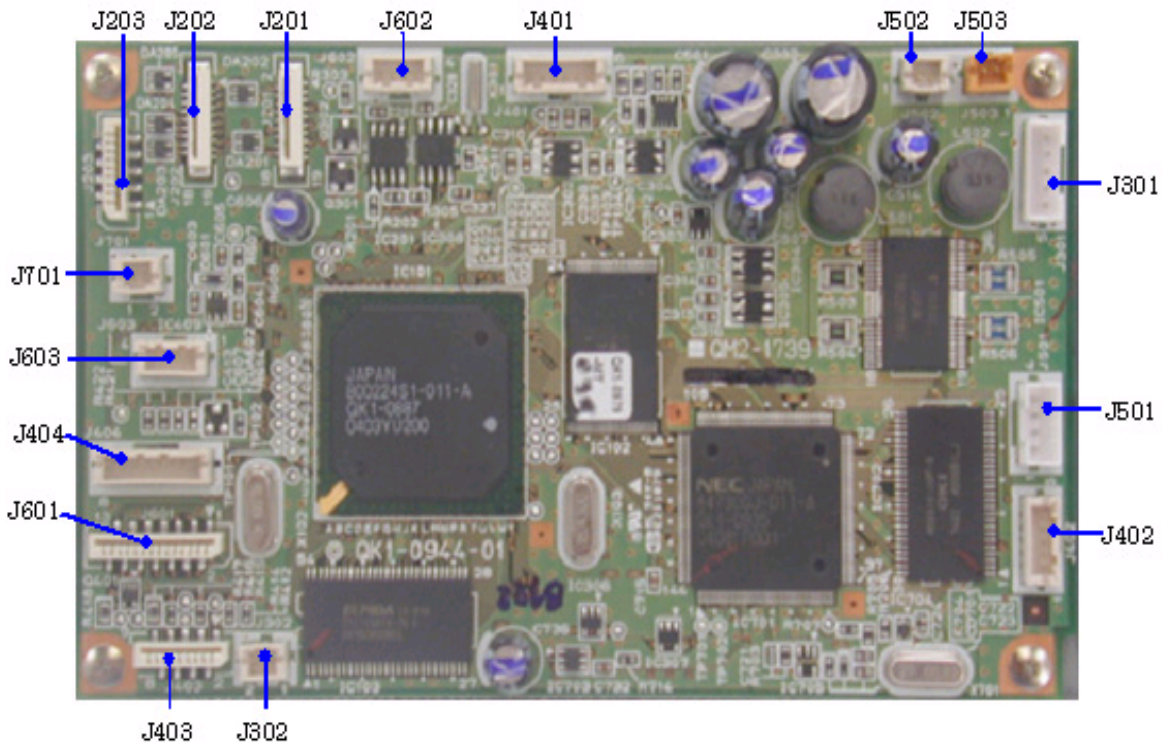
J201（Print head 1/3）

No.	Signal name	Function
1	VSS	Head logic ground
2	TH	Thermistor output
3	VSS	Head logic ground
4	VSS	Head logic ground
5	NC	Not used
6	VDD	Head logic drive power supply
7	VDD	Head logic drive power supply
8	A_DIK	Head temperature sensor cathode
9	A_DIA	Head temperature sensor anode
10	B_DIK	Head temperature sensor cathode
11	B_DIA	Head temperature sensor anode
12	VCC	Carriage encoder drive power supply
13	CH_A	Carriage encoder phase A
14	NC	Not used
15	CH_B	Carriage encoder phase B
16	SENS_GND	Ink tank installation and removal sensor ground
17	SENS_GND	Ink tank installation and removal sensor ground
18	T_SENS	Ink tank installation and removal sensor
19	NC	Not used

J202 (Print head 2/3)

No.	Signal name	Function
1	GND	Ground
2	B_HE1	Heat enable 1
3	B_HE2	Heat enable 2
4	GND	Ground
5	LT	Head data latch
6	GND	Ground
7	CLK	Head data transfer clock
8	GND	Ground
9	E_SCLK	Head EEPROM serial clock
10	E_CS	Head EEPROM chip select
11	E_DO	Head EEPROM data output
12	E_DI	Head EEPROM data input
13	B_DATA_M1	M1 serial data
14	B_DATA_C2	C2 serial data
15	B_DATA_C1	C1 serial data
16	B_DATA_Y2	Y2 serial data
17	B_DATA_M2	M2 serial data
18	B_DATA_Y1	Y1 serial data
19	GND	Ground

J203 (Print head 3/3)

No.	Signal name	Function
1 to 5	B_GNDH	Head drive power supply ground
6 to 8	B_VH	Head drive power supply
9	VHT	Head drive power supply

J301 (Power supply)

No.	Signal name	Function
1	VH	Motor head drive power supply
2	VHGND	Motor head drive power supply ground
3	VCC(4.3V)	Logic power supply
4	VCCGND	Logic power supply ground
5	PW_CONT	Power consumption control signal

J302 (Lithium battery)

No.	Signal name	Function
1	Batt_VDD	Battery drive power supply
2	GND	Ground

J401（PG / PE sensor）

No.	Signal name	Function
1	GND	Ground
2	VSEN_3.3V	Sensor power supply
3	SNS_PG	PG sense
4	GND	Ground
5	VSEN_3.3V	Sensor power supply
6	SNS_PE	PE sense

J402（ASF / PF sensor）

No.	Signal name	Function
1	SNS_ASF_CAM	ASF cam sense
2	VSEN_3.3V	Sensor power supply
3	GND	Ground
4	SNS_PF_PE	PF, PE sense
5	VSEN_3.3V	Sensor power supply

J403 (Panel / Card)

No.	Signal name	Function
1	GND	Ground
2	ALLP_SW	Print switch
3	POW_SW	Power supply switch
4	RESUME_SW	Resume/Cancel switch
5	Cover Sensor	Access cover switch
6	GND	Ground
7	LED_POW	Power LED
8	LED_RES	Error LED
9	GND	Ground

J404 (Panel / Card)

No.	Signal name	Function
1	CARD_PWR	Card power supply
2	D-	D- signal
3	D+	D+ signal
4	Gnd	Ground
5	Reset	Reset signal
6	INT(ActiveL)	Interrupt signal
7	LOGIC_PWR	Logic power supply
8	F_Gnd	Frame ground

J501 (AP motor)

No.	Signal name	Function
1	AP_B-	AP motor phase B-
2	AP_A-	AP motor phase A-
3	AP_B+	AP motor phase B+
4	AP_A+	AP motor phase A+

J502 (LF motor)

No.	Signal name	Function
1	LFM+	LF motor +
2	LFM-	LF motor -

J503 (CR motor)

No.	Signal name	Function
1	CRM+	CR motor +
2	CRM-	CR motor -

J601 (Remote control, IrDA, LF encoder)

No.	Signal name	Function
1	LF_ENC_GND	LF encoder power supply ground
2	LF_ENC_A	LF encoder phase A
3	LF_ENC_VCC	LF encoder power supply
4	LF_ENC_B	LF encoder phase B
5	IR_GND	IrDA ground
6	IR_TXD	IrDA transmit data
7	IR_GND	IrDA ground
8	IR_RXD	IrDA receive data
9	IR_GND	IrDA ground
10	IR_PowerDown	IrDA power down
11	IR_VCC	IrDA module power supply
12	RC_VCC	Remote control module power supply
13	RemoCon	Remote control mode signal
14	RC_GND	Remote control ground

J602 (to TV / USB PWB)

No.	Signal name	Function
1	SNS_USB	Vbus signal
2	D-	D- signal
3	D+	D+ signal
4	GND	Ground

J603（to IR / USB PWB）

No.	Signal name	Function
1	PWR	Vbus signal
2	D-	D- signal
3	D+	D+ signal
4	GND	Ground

J701（to TV / USB PWB）

No.	Signal name	Function
1	VIDEO	Video power supply
2	V_GND	Video power supply ground

2-2. Panel Board
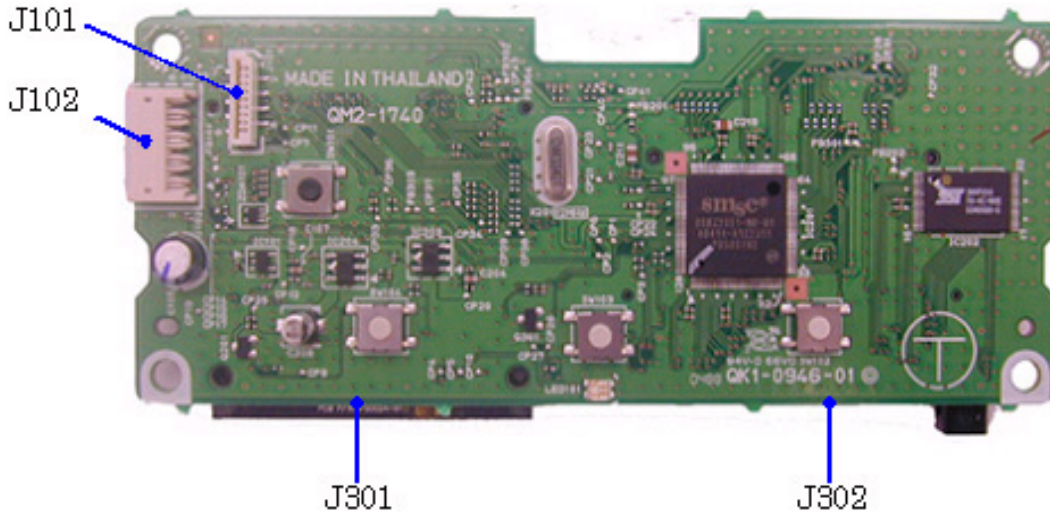
J101 (Panel)

No.	Signal name	Function
1	GND	Ground
2	ResumeLED	Error LED
3	PowerLED	Power LED
4	GND	Ground
5	CoverSensor	Cover switch
6	ResumeSW	Resume/Cancel switch
7	PowerSW	Power switch
8	AllPrintSW	Print switch
9	GND	Ground

J102 （Card_USB, Logic_DCDC）

No.	Signal name	Function
1	PWR	Card power supply
2	D-	D- signal
3	D+	D+ signal
4	USB_GND	Ground
5	Card_RESET	Card reset
6	Card_INT	Card interrupt
7	PWR	Card power supply
8	F_GND	Frame ground

J301 （Memory card connector [SmartMedia, Memory Stick, SD (MultiMedia Card)]）

No.	Signal name	Function
1	GND	MMC/SD logic power supply
2	SD_CDSW	MMC/SD card detect
3	SW_WPSW	MMC/SD write protect

No.	Signal name	Function
4	SD_DAT1	MMC/SD 16-bit data bus
5	SD_DAT0	MMC/SD 16-bit data bus
6	SD_CLK	MMC/SC clock
7	SD_CMD	MMC/SD command
8	SD_DAT3	MMC/SD 16-bit data bus
9	SD_DAT2	MMC/SD 16-bit data bus
10	VCC	MMC/SD logic power supply
11	SM_CD	SM card detect
12	SM_D4	SM 16-bit data bus
13	SM_D3	SM 16-bit data bus
14	SM_D5	SM 16-bit data bus
15	SM_D2	SM 16-bit data bus
16	SM_D6	SM 16-bit data bus
17	SM_D1	SM 16-bit data bus
18	SM_D7	SM 16-bit data bus
19	SM_D0	SM 16-bit data bus
20	SM_LVD	SM low voltage detect
21	SM_WPIN	SM write protect
22	SM_WE	SM write enable
23	SM_BSY	SM busy
24	SM_ALE	SM address latch enable
25	SM_RE	SM read enable
26	SM_CLE	SM command latch enable
27	SM_CE	SM chip enable
28	SM_SWWP2	SM write protect
29	SM_CD2	SM card detect
30	VCC	SM logic power supply
31	MS_BS	MS bus state
32	MS_D0	MS 16-bit data bus
33	MS_D2	MS 16-bit data bus
34	MS_INS	MS card insert signal
35	MS_D3	MS 16-bit data bus
36	MS_SCLK	MS system clock
37	GND	MS logic ground
38	VCC	MS logic power supply
39	MS_D1	MS 16-bit data bus

J302（Memory card connector [Compact Flash]）

No.	Signal name	Function
1	GND	CF ground
2	CF_D03	CF 16-bit data bus
3	CF_D04	CF 16-bit data bus
4	CF_D05	CF 16-bit data bus
5	CF_D06	CF 16-bit data bus
6	CF_D07	CF 16-bit data bus
7	CF_CS0X	CF chip enable

8	GND(CF_A10)	Ground (CF 24-bit address bus)
9	GND(CF_ATASELX)	Ground (CF output enable)
10	GND(CF_A09)	Ground (CF 24-bit address bus)
11	GND(CF_A08)	Ground (CF 24-bit address bus)
12	GND(CF_A07)	Ground (CF 24-bit address bus)
13	VCC	CF logic power supply
14	GND(CF_A06)	Ground (CF 24-bit address bus)
15	GND(CF_A05)	Ground (CF 24-bit address bus)
16	GND(CF_A04)	Ground (CF 24-bit address bus)
17	GND(CF_A03)	Ground (CF 24-bit address bus)
18	CF_A02	CF 24-bit address bus
19	CF_A01	CF 24-bit address bus
20	CF_A00	CF 24-bit address bus
21	CF_D00	CF 16-bit data bus
22	CF_D01	CF 16-bit data bus
23	CF_D02	CF 16-bit data bus
24	CF_IOCS16X	CF chip select 16-bit input/output
25	CF_CD2X	CF card detect
26	CF_CD1X	CF card detect
27	CF_D11	CF 16-bit data bus
28	CF_D12	CF 16-bit data bus
29	CF_D13	CF 16-bit data bus
30	CF_D14	CF 16-bit data bus
31	CF_D15	CF 16-bit data bus
32	CF_CS1X	CF chip select
33	CF_VS1	CF voltage sense
34	CF_IORD	CF read strobe input/output
35	CF_IOWR	CF write enable input/output
36	VCC(CF_WE)	CF logic power supply (write enable)
37	CF_INTRQ	CF interrupt
38	VCC	CF logic power supply
39	GND(CF_CSEL)	CF ground (chip select)
40	CF_VS2	CF voltage sense
41	CF_RESET	CF reset
42	CF_IORDY	CF ready input/output
43	CF_INPACK	CF card response
44	VCC(CF_REG)	CF register select
45	CF_DASPX	Not used
46	CF_PDIAGX	Not used
47	CF_D08	CF 16-bit data bus
48	CF_D09	CF 16-bit data bus
49	CF_D10	CF 16-bit data bus
50	GND	CF logic ground

2-3. Front I/F Board

J1 (Remote control, IrDA, LF encoder to main PWB unit)

No.	Signal name	Function
1	RC_GND	Remote control ground
2	RemoCon	Remote control mode signal
3	RC_VCC	Remote control module power supply
4	IR_VCC	IrDA module power supply
5	IR_PWDOWN	IrDA power down
6	IR_GND	IrDA ground
7	IR_RXD	IrDA receive data
8	IR_GND	IrDA ground
9	IR_TXD	IrDA transmit data
10	IR_GND	IrDA ground
11	LF_ENC_B	LF encoder phase B
12	LF_ENC_VCC	LF encoder module power supply
13	LF_ENC_A	LF encoder phase A
14	LF_ENC_GND	LF encoder ground

J2 (Camera Direct I/F to main PWB unit)

No.	Signal name	Function
1	USB_VBUS	VBUS power supply
2	USB_D-	D- signal
3	USB_D+	D+ signal
4	USB_GND	Ground

J3 (LF encoder I/F)

No.	Signal name	Function
1	LF_ENC_GND	LF encoder ground
2	LF_ENC_A	LF encoder phase A
3	LF_ENC_B	LF encoder phase B
4	LF_ENC_VCC	LF encoder module power supply

J4 (Camera Direct I/F)

No.	Signal name	Function
1	USB_VBUS	VBUS signal
2	USB_D-	D- signal
3	USB_D+	D+ signal
4	USB_GND	Ground
5	FG	Frame ground
6	FG	Frame ground
7	FG	Frame ground

2-4. Rear I/F Board

J1 （USB I/F）

No.	Signal name	Function
1	Vbus	Vbus power supply
2	D-	D- signal
3	D+	D+ signal
4	GND	Ground

J2 (USB connector)

No.	Signal name	Function
1	Vbus	Vbus signal
2	D-	D- signal
3	D+	D+ signal
4	GND	Ground

J3 (Video I/F)

No.	Signal name	Function
1	VD	Video output signal
2	GND	Ground

J4 (RCA connector)

No.	Signal name	Function
1	VD	Video output signal
2	GND	Ground

3. SPECIFICATIONS

<Printer Specifications>

Type	Serial color ink jet printer
Paper feeding method	Auto sheet feed (ASF)
Resolution	4,800 x 1,200dpi (Max., when printing using a computer), 1200 x 600dpi (when performing Direct Print)
Throughput	Memory Card Direct / Camera Direct printing, Photo Paper Plus Glossy 4x6, borderless printing, standard photo image: - Approx. 85 sec.
Printing direction	Bidirectional
Print width	Max. 101.6mm/4 inch (borderless printing)
Print yield	BCI-16 Color, PP-101 4" x 6", borderless printing, standard photo image: - Approx. 75 pages
Receive buffer	42KB
Interface	USB 2.0 Full Speed, Camera Direct port, IrDA V1.2 (supports only JPEG files), video out terminal (NTSC/PAL)
ASF stacking capacity	Max. 5mm (PP-101: 20 sheets)
Detection functions	Access cover open, Presence of print head, Presence of ink tank, Remaining ink amount (dot count), Paper presence, Paper end sensor, Waste ink amount, Internal temperature, Pick-up roller position, Paper feed roller position, Carriage position, Supported camera direct printing device, Presence of memory card, Supported paper size (in printing via the Print All button, or printing from a mobile phone)
Acoustic noise (Highest print quality)	Approx. 39dB (highest print quality settings)

Environmental requirements	During operation Temperature 5C to 35C (41F to 95F)
	
	                Humidity 10%RH to 90%RH (no condensation)
	
	Non operation Temperature 0C to 40C (32F to 104F)
	
	                Humidity 5%RH to 95%RH (no condensation)

Power supply	Power supply voltage, frequency	Power consumption	Standby	Power-off
	AC 100 to 120V, 50/60Hz	Approx. 12W	Approx. 3W	Approx. 1W
	AC 220 to 240V, 50/60Hz	Approx. 12W	Approx. 3W	Approx. 1W

External dimensions	Printer:
	  With the paper output tray and paper support retracted: Approx. 215 (W) x 217 (D) x 79(H) mm
	  With the paper output tray and paper support extended: Approx. 215 (W) x 345 (D) x 79 (H) mm

Weight	Approx. 1.8kg, not including the print head and optional units

Related standards (Printer, Adapter)	Electromagnetic radiance:
	  VCCI, FCC, IC, CE Mark, Taiwan RPC, C-Tick, CCC (EMC), GOST-R
	Electrical safety:
	  Electrical Appliance and Material Safety Law (DENAN), UL, c-UL, CB Report, CE Mark, GS, GOST-R, AS, SASO, CCC, SPRING
	Environmental regulations:
	  RoHS (EU), WEEE (EU), Green Point (Germany), Energy Star

Serial number location	On the bottom shield plate of the printer
Remaining ink amount detection	Available (automatic detection by dot count, enabled at default)
Print head alignment	- Not necessary at printer installation (when first purchased). - Manual print head alignment is available in the Tool Box menu via the remote control when connected to a TV. - Manual print head alignment is also available in the printer driver's Maintenance tab.

<Direct Printing Specifications>

Memory card drive	Supported memory card	Compact Flash TYPE I/II, Microdrive, SmartMedia Card, Memory Stick, Memory Stick PRO, MagicGate Memory Stick, SD Memory Card, MultiMediaCard, xD-Picture Card*, miniSD Memory Card*, Memory Stick Duo*, Memory Stick PRO Duo*, MagicGate Memory Stick Duo* * Adapter required
Storage function	Supported OS	Windows 2000 / XP, Mac OS X 10.2.1 or later
	Utility	- Memory Card Utility packaged with the printer (Read/Write function)
Memory Card Direct Print function	Operation panel	3 buttons, 1 LED (2 colors), memory card access LED
	Supported file format	JPEG (DCF, CIFF, Exif 2.21 or prior, JFIF), TIFF (Exif complaint), DPOF (Ver. 1.00 compliant)
	Print quality	Fixed (Standard)
	Image correction function	POP (Photo Optimizer PRO) with face brightener, VIVID Photo, noise reduction
	Image color adjustment function	Brightness, Contrast, Color hue
	Image processing function	Not available
	Image search function	Available (by exposure date)
	DPOF	Ver. 1.00 compliant
	Print layout	One-by-one printing / image specification printing: 1 image per page (bordered / borderless)
		DPOF printing: 1 image per page (bordered / borderless), 24 images per page
		Credit Card size: 6 images per page
		Layout printing: 2, 4, and 8 images per page (bordered / borderless)
		Sticker printing: 16 seals
	Resolution	Max. 1200 x 600dpi
	Throughput	Photo Paper Plus Glossy 4x6, borderless, standard photo: Approx. 85 sec.
Camera Direct Print function	Supported digital cameras	Digital cameras and digital video cameras supporting Canon Bubble Jet Direct or PictBridge
	Supported print layout	- 1 image per page (bordered / borderless) - Index printing - 2, 4, 9, and 16 images with bordered per page (only when 4" x 6" paper size is selected)
	Resolution	Max. 1200 x 600dpi
	Throughput	PP-101 4x6, borderless, standard photo: Approx. 85 sec.
Infrared printing function	Supported mobile phones	Mobile phone equipped with IrDA 1.2 port, compliant with IrMC version 1.1
	Printable data	Image (JPEG only)
	Print layout	- Paper other than Photo Stickers: 1, 2, 4, and 8 images per page (bordered / borderless) - Photo Stickers: 16 image per page (bordered)

<Print Head Specifications>

Type	Single head with 3 colors (C/M/Y)
Print head	Each color: 256 nozzles (128 nozzles each for 2pl and 5pl) Total: 768 nozzles (600dpi)
Ink color	Cyan, magenta, yellow
Applicable ink tank	BCI-16 Color (dye-based), single tank with 3 colors (C/M/Y)
Weight (Net)	Approx. 27g (not including the ink tank, protective materials, and packing material)
Supply method	As a service part (not including the ink tank)
Part number	QY6-0056-000